Vol. XXXVII SEPTEMBER, 1925 No. 3

THE WILSON BULLETIN

A Magazine of Field Ornithology

Published by the

WILSON ORNITHOLOGICAL CLUB

at

SIOUX CITY, IOWA

Entered as Second-class Mail Matter, July 13, 1916, at the Postoffice at Sioux City, Iowa, under Act of March 3, 1879.

CONTENTS

Additional Evidence Against the House Wren	By Miss Althea R. Sherman	129-132
Field Studies of the Diurnal Raptores of Eastern and Central Kansas	By Howard Kay Gloyd	133-149
Ten All-Day Bird Censuses from Dutchess County, N. Y.	By Maunsell S. Crosby	150-157
Statistics on the House Wren	By O. M. Byrens	157-159
Bad Habits of the House Wren	By Mrs. Charles F. Weigle	160-163
Birds of Fulton County, Kentucky	By Dr. L. Otley Pindar	163-169
Editorial		170-171
General Notes		172-177
Bird Banding News		177-182
Notes Here and There		182-186
Proceedings		186-190
Publications Reviewed		190-192

THE WILSON BULLETIN

Published quarterly, in March, June, September, and December, as the official organ of the Wilson Ornithological Club, at Sioux City, Iowa.

The current issue of the Wilson Bulletin is printed by the Verstegen Printing Company, Sioux City, Iowa.

The Wilson Bulletin is sent to all members not in arrears for dues. The subscription price is $1.50 a year, invariably in advance, in the United States. Outside of the United States the subscription rate is $2.00.

All articles and communications for publication, books and publications for notice, and exchanges, should be addressed to the Editor.

New subscriptions, changes of address, and applications for membership should be addressed to the Secretary. Personal items, news of events in the scientific world, and other notes suitable for our "Notes Here and There" department may also be addressed to the Secretary.

Claims for lost and undelivered copies of the magazine may be addressed to the Editor.

The present editorial organization is as follows:

T. C. Stephens, Editor-in-Chief, Sioux City, Iowa.
Dr. Lynds Jones, Oberlin, Ohio.
Prof. Myron H. Swenk, Lincoln, Nebraska.
Prof. Gordon Wilson, Bowling Green, Kentucky.
Mr. Wm. I. Lyon, Waukegan, Illinois.
Mr. Chas. J. Spiker, Sioux City, Iowa.

THE WILSON ORNITHOLOGICAL CLUB

Founded December 3, 1888. Named after Alexander Wilson, the first American ornithologist.

The officers for the current year are:

President—Albert F. Ganier, 2507 Ashwood Ave., Nashville, Tenn.
Vice-President—Thos. H. Whitney, Atlantic, Iowa.
Secretary—Prof. Gordon Wilson, Bowling Green, Ky.
Treasurer—Ben J. Blincoe, R. F. D. No. 13, Dayton, Ohio.

The membership dues are—Sustaining membership, $5.00; active membership, $2.50; associate membership, $1.50 per year.

THE WILSON BULLETIN

A QUARTERLY JOURNAL OF ORNITHOLOGY

Vol. XXXVII. No. 3 September, 1925

Old Series VOL. XXXVII. New Series VOL. XXXII.

ADDITIONAL EVIDENCE AGAINST THE HOUSE WREN

BY ALTHEA R. SHERMAN

Without due warning concerning the deadly menace that the House Wren is to its bird neighbors, little children, as well as older people, have been urged to provide for wrens nesting boxes, that facilitate their breeding in numbers out of all proportion to other bird life. It was with a hope of checking in some degree a most dangerous practice that six months ago I wrote to ask that wren boxes be abandoned. The most that this urged was a halt in the breeding of House Wrens. There is nothing in that appeal that ought to lead a candid mind to imagine that I am bent on the extermination of this wren. I am not bent on the extermination of any species of birds, but I am convinced that the welfare of our small birds calls for the banishment of the House Wren from our gardens and dooryards.

It may be in place here to say that although I have studied the House Wren long and closely I have caught him in acts of destruction less frequently than some people have, who have studied him less. The catching of him "red-handed" seems largely to be a matter of chance or good luck. Not more than two or three persons in a hundred million have the patience to watch him until detection comes. Besides sufficient of the in-the-act detection I have had a large amount of circumstantial evidence, indisputable proofs of his handiwork. (Now let all wren addicts have spasms over the use of "handiwork", a word strictly applicable to man and monkeys only, yet the word "billiwork" has not been coined, nor have many other words, that might better express ideas relating to birds. Our language is based largely on concepts of human life, relations, and ideals. However, it is quite safe to say that those who know the House Wren most thoroughly will agree upon the appropriateness for him of the imagery called up by the words "felon, criminal, demon, and devil".)

Unquestionably there are grades of viciousness in certain families, whether bird or human. The infamous Jukes family may be cited for illustration of the latter. Against filling the earth with a population of this sort eugenists cry aloud, but their protests do not call

forth the contemptuous leering of incredulity that greets like efforts to limit the breeding of the House Wren. Additional evidence of the viciousness of this species tends to show that it is its diabolical disposition alone that prompts it to destructive acts. The theory of "territory" held by some of us receives a severe jolt from testimony coming from localities in which this wren is a newcomer as a breeding species. On about the same date last spring three bird magazines published three most convincing testimonies on this point. One article from Brookfield, Mass., tells of the havoc played on the writer's home place by the first nesting pair of House Wrens. These wrens destroyed the eggs of Tree Swallows, Robins, and Chipping Sparrows. From Hillsboro, Ohio, was reported the routing from their ancestral home of a nesting pair of Bewick's Wren by the arch-demon wren. History repeats itself. At Hillsboro the House Wren upon first appearance drove out the Bewick's Wren exactly as it did at Olney, Illinois, fifty years ago, and as it will most likely do fifty centuries hence, if then there remains any of the former species for it to dispossess. From Carlisle, Indiana, comes the history of the first appearance there of breeding House Wrens, which immediately destroyed a Chickadee's nest. This was several years ago and no Chickadee ever returned to nest. Verily, it is a requiem that this wren constantly sings, and its words are "Never more; Never more".

Rarely has the House Wren been seen sucking the eggs it has pierced. Two instances in which it played this nefarious role are at hand. Mrs. H. C. Beardslee, of Perry, Ohio, has reported that recently she *saw* a wren sucking the egg of a Chipping Sparrow. Another occurrence, that also happened in Ohio, has been described in a letter from Mr. Willis H. Warner, which with his permission is published herewith.

April 29, 1925.

Dear Friend:

I regard your article in the March number of the WILSON BULLETIN of inestimable value. I can verify from personal observation all your counts against the wren, and at least one more, viz., that of egg-sucking.

For eighteen years I have been observing the malevolent nature of the House Wren. I have seen him pitch eggs out of martin houses; I have seen him go in and out of Bluebird houses, which were occupied, and deliberately tease the owners by the hour. And time and again, I have seen pierced Bluebird eggs on the ground with holes the size of a wren's bill. I have seen him pulling the hair lining out of a Chipping Sparrow's nest, the freshly pierced and broken eggs lying on the ground below; and I have had the experience of having a Robin's egg drop at my feet from a nest in a vine above, beside which was a wren. Repeatedly he has broken up Cardinals' nests in our dooryard.

One spring the Cardinal built her nest and had laid three eggs, before the arrival of the wren on the place. Hearing the wren song one evening, and knowing that incubation at the Cardinal's nest had not begun, I covered the nest with a rhubarb leaf. Having observed that the Cardinal went on her nest about 7:00 o'clock in the morning to lay her eggs, I removed the leaf at 6:00 next morning. Returning at 7:30 I found one pierced egg on the ground, the others gone. I had to leave at once, so could not search for them to see how far they had been carried.

May 3, 1920, a pair of Cardinals selected a nesting site in a bush honeysuckle about two feet from one of our windows, which afforded us a wonderful opportunity for observation. That the exhaust of a gasoline engine, which was used about ten minutes each morning for pumping water, was about six feet from the selected location, did not seem to disturb the Cardinals whatever. Deliberately the nest was completed, and on the twelfth of May the first egg was laid. Sometime during the afternoon the egg was pierced. We removed it, fearing that its presence might be the cause of abandoning the nest.

The next morning another egg was laid; and again that afternoon between 2:30 and 4:30 o'clock the egg was pierced, and a wren was near the nest when Mrs. Warner made the discovery. In the evening, just at dusk, we went to the window and there was the wren in the nest. He had his bill in the egg, and was humped over it in such a manner that we had difficulty in immediately recognizing him. We watched him for fully two minutes or more. His neck feathers moved at intervals, indicating that he was swallowing. Finally, I reached out cautiously in attempt to capture him; he saw me in time, however, and made his escape. I am sorry that I did not wait to see if he would carry away the shell, which we removed. The Cardinals abandoned the nest.

I have noticed that not more than one pair of House Wrens rule the dooryard at one time. However, one summer there were nineteen wrens on the place, actual count; and not one wren was counted twice, I assure you!

I took down the wren houses long ago, and later, the Bluebird houses, for they merely attract wrens.

I am glad to refer your article to my friends and acquaintances who deplore my antipathy toward the dear little confiding (!) songster.

Yours most sincerely,

Willis H. Warner.

Canfield, Ohio.

The chief lesson, learned by me in the last half year from the new evidences brought against the House Wren, is that he is a blacker villain than I had thought him to be. His breaking up of nests by destroying the eggs is bad enough, his killing of unfledged nestlings is far worse. His evil activities seem to be unflagging. Early and late, from dawn till dark, he is busy seeking for mischief. Because he is a stranger in new territory is no check on his vicious conduct. For deadly work he is the rattlesnake of the bird world. Speaking of rattlesnakes, why should not little children be encouraged to raise them along with their House Wrens? The present demand seems to be for thrills, and yet more thrills. The rattle of the rattlesnake would

supply some of these thrills. Already a step in the direction of thrill-providing has been taken by the conservation society of one of our states, which proclaims its purpose to protect, develop, and conserve rattlesnakes. Its exact words are "*all native animals*", and no one denies that rattlesnakes are native animals.

Since the majority rules it would decree that an old lady of eighty or ninety years, who for sixty or seventy years has seen nothing blameworthy in her wren, should not be discouraged from raising all the wrens she can. But what about the old ladies, living on either side of her, who would like to have some other little birds, but cannot because her wrens drive them away? They are too old to combat with gun and trap the evil ones she insists on raising. Surely others besides wren breeders ought to have rights that are recognizable. An alcohol or drug addict injures himself mainly, but a wren addict harms the entire neighborhood.

It would take some number consisting of four figures to enumerate the many happy hours I have spent with the Short-billed Marsh Wren. The only fly in an otherwise perfect ointment has been a lurking fear that this delightful little bird may possess bad traits similar to those of its cousin the Long-billed Marsh Wren or its more distant relative the House Wren. Should some trustworthy observer announce that many times he has seen the Short-billed Marsh Wren destroying the eggs of other birds this announcement would fill the day with deep sadness. Should this one observer be joined by scores and scores of other reliable witnesses, who testify to like observations their proofs would be convincing, but they would not be met by such sneers, and leers, and jeers as greet the presentation of the truth regarding the House Wren. Some people have called the Short-billed Marsh Wren shy. Long years of close companionship with him has led me to contrary conclusions. To no other bird of my acquaintance, except those fed by me, is so close an approach possible as there is to this little wren of the marshes. Far more agreeable would it be to spend time writing about his winning ways and little-known, but peculiar habits, than to spend that time in telling of the fiendish deeds of the House Wren. But in face of peril conscience will urge us to tasks that are neither pleasant nor profitable. There are people who deny that the earth is round, and there are other people who deny that the House Wren is a bad bird. It remains for teachers to choose between the presentations of these denials or of the truths that scientific investigations have proved.

National, via McGregor, Iowa.

FIELD STUDIES OF THE DIURNAL RAPTORES OF EASTERN AND CENTRAL KANSAS[1]

BY HOWARD KAY GLOYD

The economic status of the birds of prey of the United States has for some time been a subject for investigation by many ornithologists. The results of this work have shown in a striking manner the great importance of hawks and owls to American agriculture, and the immense value of these birds as destroyers of rodent pests. It is now common knowledge that the majority of rapacious birds are beneficial rather than harmful, and that only a very few species are responsible for the depredations usually attributed to the group as a whole. In order to be really just in the treatment of the birds of prey, and to derive the maximum benefit from their activities in holding in check the ravages of injurious mammals, a policy of intelligent discrimination must be adopted.

It is easier to say "discriminate", however, than actually to meet the tests which careful differentiation in the field requires. To the average person a hawk is simply a hawk, or more probably a "chicken hawk", and even though he may remember having heard that not all hawks kill chickens, he is inclined to be a little skeptical. Until this feeling of prejudice against birds of prey among farmers and sportsmen is overcome, we cannot give to the deserving species the protection that is due them. With their fate in the hands of those ignorant as to their true value, their extermination is only a question of time. It needs but a moment's thought for one to realize in some degree what a serious misfortune such a loss would mean to agricultural enterprises. It is the purpose of this paper to facilitate in some measure the problem of field discrimination of the species of day-flying birds of prey.

Dr. A. K. Fisher (1907), of the Bureau of Biological Survey, United States Department of Agriculture, has arbitrarily grouped the birds of prey of the United States into four classes according to their beneficial and harmful qualities. This classification is based entirely upon the examination of the stomach contents of thousands of specimens received from collectors throughout the country and during every season of the year. The species considered in this paper are the diurnal birds of prey (it is obvious that in a field key the owls could not be

---

[1]Paper number 76 from the Department of Zoology, Kansas State Agricultural College and Experiment Station.

The writer wishes to acknowledge his indebtedness to Dr. Alexander Wetmore, United States Department of Agriculture, Bureau of Biological Survey, for reading the manuscript and offering valuable criticisms regarding the keys.

conveniently treated in the same manner as the hawks) which are common, or at least fairly common, in the region in which these studies were made. They fall into the scheme of Dr. Fisher's grouping as follows:[2]

(1) WHOLLY BENEFICIAL SPECIES:
Archibuteo lagopus sancti-johannis (Gmelin). Rough-legged Hawk.
Archibuteo ferrugineus (Lichtenstein). Ferruginous Rough-leg.

(2) SPECIES CHIEFLY BENEFICIAL:
Circus hudsonius (Linn.). Marsh Hawk.
Buteo borealis borealis (Gmelin). Red-tailed Hawk.
Buteo borealis krideri Hoopes. Krider's Hawk.
Buteo borealis calurus Cassin. Western Red-tail.
Buteo borealis harlani (Audubon). Harlan's Hawk.
Buteo lineatus lineatus (Gmelin). Red-shouldered Hawk.
Buteo swainsoni Bonap. Swainson's Hawk.
Falco sparverius sparverius Linn[3]. Sparrow Hawk.

(3) SPECIES PARTLY BENEFICIAL AND PARTLY HARMFUL:
Aquila chrysaetos (Linn.) Golden Eagle.
Haliaeetus leucocephalus leucocephalus (Linn.). Bald Eagle.
Falco columbarius columbarius Linn. Pigeon Hawk.

(4) SPECIES ENTIRELY HARMFUL:
Accipiter velox (Wilson). Sharp-shinned Hawk.
Accipiter cooperi (Bonaparte). Cooper's Hawk.
Astur atricapillus atricapillus (Wilson). Goshawk.

The Osprey is not mentioned by Dr. Fisher but it is included here as its identification in the field is of interest.

A glance at the foregoing will show that most of the common hawks of Kansas fall into groups 2 and 3, those mostly beneficial and those at least partly beneficial. It is also significant that the hawks of group 2, those chiefly beneficial, are of greatest abundance. Of

---

[2]The following species listed for Kansas by Goss, Snow and Lantz have been omitted because they are now rare or accidental, and not of great economic significance in this locality: *Elanoides forficatus* (Linn.), Swallow-tailed Kite; *Ictinia mississippiensis* (Wilson), Mississippi Kite; *Falco rusticolus rusticolus* Linn., Gray Gyrfalcon; *Falco mexicanus* Schlegel, Prairie Falcon; *Falco peregrinus anatum* Bonaparte, Duck Hawk; and *Falco columbarius richardsoni* Ridgway, Richardson's Pigeon Hawk.

[3]See page 147 for footnote concerning the Sparrow Hawk.

the entirely harmful hawks, there is no question about the desirability of greatly reducing the number of both the Sharp-shinned and the Cooper's for they, especially Cooper's, constitute the greatest menace to poultry and wild bird life. The Goshawk, fortunately, is not common in Kansas and is to be found only at irregular intervals in winter when most smaller birds have migrated southward and most poultry is well housed. It is among such native game birds as the grouse and Bob-white that the Goshawk does its serious harm.

Field students know that the different birds of prey possess various characteristics of size, form, general coloration, length and shape of wing, mannerisms of flight, prominent banner marks, call notes and other lesser indications of individuality which are of great value in identification at a distance. These characteristics differ, as a rule, with the genera. The person who knows hawks can discriminate between a Buteo and a Falcon at almost any distance as surely as if the bird were in the hand. With these in mind, the writer has endeavored to prepare a workable field key to genera and several subkeys to species, distinguishing between ages, sexes, color phases, etc., as far as possible. In preparing these keys he has endeavored to employ only those characteristics which under favorable conditions are plainly visible with the naked eye, although a prism binocular or good field glass will be found to be of great help, and its use is taken for granted in observing some of the details mentioned.

Particular attention has been given to the wing structure and wing movement in every instance. The form and shape of the wing is indicative of the habits of the bird. For example, the wing of the Falcon, long, flat, narrow, rigid, and unbroken at the end, with only the outer primaries slightly notched, is adapted to swift flight in the open. The wing of the Accipiters and the Goshawk, short, broad, deeply cupped, elastic and with the first five outer primaries emarginate, or notched, giving an "open" appearance to the rounded tip, is adapted for precipitate flight in cover.

Melanistic conditions and immature plumages greatly complicate and increase the difficulty of field identification in the cases of several species. In others the presence of many color variations of slight racial differences must be considered. In the use of these keys it must be kept in mind that all keys are subject to many limitations, and favorable conditions, good binoculars or field glasses, and at least some fundamental knowledge of the systematic arrangement of the birds of prey, are taken for granted as prerequisites to their successful use.

KEY TO GENERA

A. SIZE VERY LARGE: Length 30 inches or over; plumage dark brown or fuscous, sometimes almost black, sometimes mottled with white; wings large and broad, blunt or rounded at tips and turning up slightly in flight.

I. Head at distance appears the same color as body.

1. Tarsi feathered.

a. Tarsal feathers white or light buff; base of tail white. . . . *Aquila.* Immature GOLDEN EAGLE.

b. Tarsal feathers darker; tail with no white. . . . *Aquila.* Adult GOLDEN EAGLE.

2. Tarsi naked. . . . *Haliaeetus.* Immature BALD EAGLE.

II. Head and tail white. . . . *Haliaeetus.* Adult BALD EAGLE.

B. SIZE MODERATELY LARGE, OR LESS: Length 15 to 25 inches.

I. Body robust, heavy set.

1. Plumage black; tarsi feathered; primaries and tail barred with whitish or grayish. . . . *Archibueto,* black phase. ROUGH-LEGGED HAWK.

2. Plumage dark brown, fuscous, or gray above.

a. Wings relatively broad; light or dark underneath.

(a) Tarsi feathered; wings rather pointed at tips. . . . *Archibuteo.*[4] ROUGH-LEGGED HAWK, light phase.

(b) Tarsi not feathered; wings blunt or rounded at tips.

a. Tail long, only slightly rounded and seldom spread in flight. . . . *Astur.* GOSHAWK.

b. Tail relatively short, truncate, carried fanlike when soaring, and frequently alternately spread and closed in flight. . . . *Buteo.* Buzzard Hawks.

b. Wings longer, more pointed; a prominent dark streak on side of head. . . . . *Pandion.* OSPREY.

II. Body slender.

1. Wings short, broad, and rounded; primaries and secondaries barred with blackish. . . . *Accipiter.* COOPER'S and SHARP-SHINNED HAWKS.

2. Wings long, narrow and pointed.

a. Primaries black, barred with white or whitish. . . . *Falco.* The Falcons.

b. Primaries tipped with black; rump white; tail long, seldom greatly spread. . . . *Circus.* MARSH HAWK.

Genus CIRCUS Lacepede.

I. Dark brown or fuscous above; underparts buffy, streaked with fuscous or umber. . . . *C. hudsonius.* Female or immature MARSH HAWK.

II. Silvery gray or slate color above; under-parts light gray to whitish, belly spotted or barred with rufous. . . . *C. hudsonius.* Adult male MARSH HAWK.

1. *Circus hudsonius* (Linn.). Marsh Hawk.

The Marsh Hawk is one of the most common raptorial birds of Kansas and consequently one of the most persecuted. It has been shown by Dr. Fisher and others that it feeds principally on meadow mice, rabbits, squirrels, lizards, snakes and frogs, although it is true

[4]See key to species of *Archibuteo.*

that it often pounces upon small birds and occasionally on game, and poultry. It flies throughout the day and in the evening. This hawk is remarkable for its slender, graceful form, with long black-tipped wings, narrow tail, and white rump that can be plainly seen whether the individual is an adult in silvery gray plumage, or a female or immature bird in less conspicuous garb of fuscous and buff. It is characteristic of this hawk that its quarry is eaten wherever captured.

The Marsh Hawk deserves protection except in individual cases where one is actually seen capturing poultry, game or beneficial wild birds.

Genus ACCIPITER Brisson.

I. Length 14 to 20 inches; tail long and rounded at tip.
   1. Upperparts slate gray; underparts whitish, heavily barred with rufous; tail gray with three or four black bars and white tip. . . . *A. cooperi.* Adult COOPER'S HAWK.
   2. Upperparts fuscous; underparts whitish, streaked and spotted with fuscous; tail fuscous with darker bars and white tip. . . . *A. cooperi.* Immature COOPER'S HAWK.

II. Length 10 to 14 inches; tail square at tip.
   1. Upperparts slate gray, streaked with blackish; underparts whitish, heavily barred with rufous; tail with black bands and a white tip. . . . *A. velox.* Adult SHARP-SHINNED HAWK.
   2. Upperparts fuscous; underparts whitish, streaked or spotted with fuscous; tail fuscous with darker bands and white tip. . . . *A. velox.* Immature SHARP-SHINNED HAWK.

2. *Accipiter velox* (Wilson). Sharp-shinned Hawk.

This little hawk with its somewhat larger relative, *A. cooperi*, is responsible for the largest share of the blame for the criminal reputation usually attached to all birds of prey. It is not a bird of the open, but frequents the wooded areas, its short wings and long tail enabling it to thread the densest thicket in pursuit of its prey which consists almost entirely of song and insectivorous birds and, when opportunity offers, of young poultry.

The sharp-shin's specific name, *velox*, (Latin meaning "swift") is highly indicative of the nature of its movements. It has been known to pounce upon a small chick and carry it away beyond gunshot before a man, on the lookout for hawk visitors, could walk ten feet to his gun. Its strength and courage would be admirable qualities were they applied in other directions.

It is small in size, measuring from 10 to 14 inches in length. Its wings are broad and rounded, primaries heavily barred with blackish gray, and tail nearly square with blackish or fuscous crossbars and a white tip. The adults are slate gray above, white barred with ochraceous buff or rufous beneath. Immature birds have the upper-

parts brown or fuscous and the underparts streaked and spotted with fuscous.

On rare occasions it is known to soar in narrow circles. It can then be easily recognized by its short, rounded wings and long, square-ended tail. It seems to prefer, however, to capture its food by making swift, fierce darts from the concealment of thick foliage, returning to cover in like manner, rather than to seek its victims by soaring high in the air as is the common method of the Buteos. Dr. Chapman (1921), states that he has seen it follow its quarry on foot through the underbrush.

The sharp-shin richly merits the punishment and persecution of the world at large, but its swiftness and secretive habits make it possible to escape most frequently the nemesis which is its rightful due.

3. *Accipter cooperi* (Bonaparte). Cooper's Hawk.

The Cooper's Hawk is very similar to the Sharp-shinned Hawk in coloring, form, and habits. It also is of a secretive nature, being found more often in the cover of trees and thickets than in the open country. It is, however, despite its larger size, less noted for sheer daring and courage. Nevertheless, it is more destructive to poultry and game birds, for it is large and strong enough to capture quite large chickens as well as desirable wild fowls. The Bob-white suffers especially from its ravages. A large percentage of its food may consist of these birds, which in winter are sometimes hunted by a pair of hawks, two or more quail being captured at one time from a single flock.

Though larger than the sharp-shin, it closely resembles that species in the coloration of both adult and immature birds. It can be distinguished from that species by the difference in size and the rounded tail. In flight across open spaces, a short sail alternates with a few rapid wing beats. This is characteristic of both members of this genus.

The Cooper's Hawk is the most abundant of the harmful hawks of this region and is perhaps the greatest menace to poultry and wild life among all the birds of prey.

Genus ASTUR Lacepede.

I. Bluish slate color above; tail more or less distinctly barred with blackish; underparts grayish white barred and streaked with grayish black; primaries black, unbarred. . . . *A. a. atricapillus.* Adult GOSHAWK.

II. Dark brown or fuscous above; tail barred with black; underparts white or buffy, heavily streaked with fuscous or black. . . . *A. a. atricapillus.* Immature GOSHAWK.

4. *Astur atricapillus atricapillus* (Wilson). Goshawk.

The Goshawk, were it more abundant here, would be a danger to wild life and poultry that would give rise to a problem of great

seriousness. Fortunately, it has a northern range, entering the United States only during the winter months. Even then it is not common enough in Kansas to be of great importance as a destroyer of desirable birds. In the northern states, however, it does great damage among the grouse. Its large size, great strength, and dashing courage make it possible for it to seize and carry away quite large fowls. It completely ignores the presence of man when pursuing its quarry. Authentic instances have been known where it has followed a chicken into a farmer's dwelling, in one case making its kill under the bed. On rare occasions, it has been known to attack man.

The Goshawk, like the Cooper's and Sharp-shinned Hawks, frequents the wooded regions and is admirably adapted for pursuing its quarry through dense growths of trees and thickets. It seldom or never soars, but makes swift, unerring plunges after the unlucky grouse or hare, fastens upon it at once, either in the air or on the ground, and clings to it until life is crushed out by the great and powerful talons piercing the very vitals of its prey. It also has the curious habit, sometimes practiced by the Barn Owl, of covering its victim with outspread wings and tail until its struggles cease.

The Goshawk is one of the few American hawks used in falconry since it and the true falcons alone possess the necessary strength, courage and ferocity for pursuing and striking down legitimate quarry, and the necessary tractability for their being subdued to the will of man.

Its characteristic size and form will identify the Goshawk at almost any distance. Its long tail and short rounded wings with the five outer primaries emarginate resemble the Cooper's Hawk, though the difference in size is quite apparent. Adults are bluish gray above with underparts light gray, barred or streaked with blackish, the character of the latter markings depending on age. The tail is gray, barred with blackish and rounded at the tip. Immature birds are fuscous above, with tail of the same color, and barred with dark brown or blackish. Underparts are buffy to whitish, streaked or blotched with fuscous.

Genus BUTEO Lacepede.

I. Larger than a crow; of heavy, robust body.

1. Four primaries incised at tip; in normal plumage with light band across chest; sometimes wholly dark below; tail in adult with more or less reddish brown. . . . *B. borealis* and subspecies. [5]Red-tailed Hawks.

---

[5]Since *B. b. borealis* and its subspecies named above all occur in this locality and are present in so many variations of plumage, the student can never be positive in distinguishing these varieties in the field, so no attempt has been made to

2. Three primaries incised at tip; in normal plumage with dark band across chest; sometimes wholly dark below; tail in adult without evident reddish brown. . . . *B. swainsoni.* SWAINSON'S HAWK.

II. Size that of crow or less; body less robust.

1. Size larger; length 17½ to 22 inches; outer webs of primaries distinctly spotted; wings with prominent dark crossbars; four primaries incised at tip. . . . *B. lineatus.* Adult RED-SHOULDERED HAWK.

2. Size smaller, length 13 to 18 inches; outer webs of primaries dark, wings usually without prominent dark crossbars; three primaries incised at tip. . . . *B. platypterus.* Adult BROAD-WINGED HAWK.[6]

The large, heavy, slow-moving hawks which are found beating their way across the fields or through the timber, or sitting quietly on a dead branch of a lone tree or on a telegraph pole, are most frequently the Buteos or buzzard hawks, unless during the winter months the somewhat similar Archibuteo, the rough-leg, is seen. The hawks of this genus range from large to medium in size, from the Red-tailed to the Broad-winged. Their flight is strong but slow, with regular wing beats. When soaring, which is a common habit, they sometimes reach a great height and float through the air with tail spread like a great fan, as easily and gracefully as a Turkey Vulture. Their wings are broad, strong and rounded, and either the first three or four outer primaries are emarginate or notched giving an "open" appearance to the wing tips. In ordinary flight the tail is only slightly spread, or alternately spread and closed at brief intervals, but in soaring the tail is spread to its greatest extent and is fan-shaped.

The Buteos never pursue their quarry through the air, but seem to prefer to sit quietly on some isolated perch or soar at a considerable height and, when prey is sighted beneath, drop upon it with a swiftness almost incredible for such large and deliberate birds. The writer once witnessed a soaring red-tail suddenly pause, hover for an instant, then partially close its wings, and drop precipitously from a height of 200 feet, catching itself with extended pinions when only a few feet from the ground and pounce upon a small mammal which it carried to a perch in a large walnut tree to devour at leisure.

---

include these in the key. Such a key, if prepared, would present complications too great for practical field use. In general *B. b. borealis* and its subspecies are approximately of the same size and present very similar flight characteristics. It may be roughly stated, however, that *B. b. krideri* and *B. b. harlani* represent extremes in degree of coloration, light and dark respectively, and that *B. b. borealis* and *B. b. calurus* appear to be intermediate between the two, though the latter more often approaches the darker form. See further discussion under the heading *B. b. borealis.*

[6]Immature specimens of *B. l. lineatus* and *B. p. platypterus* possess scarcely enough prominent markings to distinguish them from the adults in the field although there is an obvious difference in size between the two species.

The food of the Buteos consists mainly of injurious mammals and insects, though reptiles, birds, and batrachians are also eaten. The larger members of the genus feed extensively on rabbits and though known to kill birds and poultry occasionally, Dr. Fisher has shown that from 60 to 90 per cent of their food is injurious rodents. The Red-tailed and Red-shouldered Hawks least of all deserve the appellation of "hen-hawk" which is so often given them.

From the above, and from the data given in the key to genera, the Buteos can easily be distinguished as a genus by their very prominent and apparent characters of form and flight behavior. It is possible to distinguish some of the species only under the most favorable conditions and with a good glass. Even then, with regard to the larger species, *B. b. borealis* and its subspecies, exact identification in the field is not possible except in a few cases which will be discussed under the headings that follow.

5. *Buteo borealis borealis* (Gmelin). Red-tailed Hawk.

The great similarity and lack of any distinguishing features in the immature and melanistic color phases of the Red-tailed Hawk and its races greatly complicate field work with the larger Buteos. Under favorable conditions of light and distance, *B. b. borealis* in adult plumage may be distinguished by the deep brownish-red of the upper surface of the tail. When in flight directly away from the observer, and in a favorable direction in regard to sunlight, the red of the upper side of the tail can be readily seen if the bird suddenly glides upward, thereby lowering its tail to some extent. Immature birds and melanistic specimens are easily confused with *B. b. calurus* and *B. b. harlani*, the difference in size between the common species and the latter being too slight to be important for field use. The cry of the Red-tail is sometimes significant as a mark of identification. It is a long-drawn explosive scream and once heard is not easily forgotten.

6. *Buteo borealis krideri* Hoopes. Krider's Hawk.

Very pale Buteos with a large amount of white and an absence of dark markings below can rather safely be identified as *B. b. krideri*. This is a rare subspecies in Kansas. In its habits and food preferences it is very similar to the red-tail. The stomach of a specimen, taken by the writer in 1921, contained the remains of a stripped ground squirrel, *Citellus tridecemlineatus* (Mitchill), and an entire 19 inch snake, *Coluber constrictor flaviventris* (Say) (Blue Racer). The farmer near whose home the hawk was taken declared that the bird had been stealing young chickens.

7. *Buteo borealis calurus* Cassin. Western Red-tail.

It is usually hardly possible to distinguish the Western Red-tail from other red-tails in the field in any plumage. Its adult coloration is quite similar to that of *B. b. harlani*, and the immature phases of the common species, *B. b. borealis*. It is considered by Goss to be an irregular winter sojourner, never having been seen by him during the summer months. It is doubtful if it can be considered common in this region at any time.

8. *Buteo borealis harlani* (Audubon). Harlan's Hawk.

Harlan's Hawk represents an extremely dark race of *Buteo borealis*. It is slightly smaller than the three foregoing species, rather uncommon, and practically indistinguishable in the field from immature or melanistic individuals of *B. b. borealis* or *B. b. calurus*.

9. *Buteo lineatus lineatus* (Gmelin). Red-shouldered Hawk.

Though the Red-shouldered Hawk is somewhat smaller than the Red-tailed Hawk and its subspecies, it shares with them the erroneous common name of "hen-hawk". The Red-shouldered Hawk is not abundant in Kansas as it is more commonly found in more wooded sections. It is rather solitary in habit, one pair pre-empting a certain locality for a nesting site and hunting ground and driving off other hawks that attempt to encroach. It now is a rare resident of this region in the eastern portion. This species ranks between the Red-tailed and Broad-winged Hawks in size and may usually be distinguished in the field by the heavy barring on the under side of the wings. The four outer primaries are notched. Adults have a conspicuous "shoulder patch" formed by the rufous lesser wing-coverts. They are fuscous-brown above, ochraceous buff below with underparts barred with white or whitish and with tail handsomely barred with black and white. Immature birds resemble adults dorsally, but have a less conspicuous shoulder-patch, and ventrally are white, streaked or spotted with black or blackish, tail same as back, barring indistinct.

10. *Buteo swainsoni* Bonaparte. Swainson's Hawk.

Swainson's Hawks are more western in distribution and are great insect feeders. Grasshoppers and crickets form almost their entire diet when they gather into flocks among the foothills of the west after the breeding season. Dr. Fisher estimates that each hawk will eat at least 200 grasshoppers daily. They are also great enemies of the

ground squirrels and other injurious rodents. Evidence shows that they rarely touch poultry, game or small birds.

Swainson's Hawks are very similar to Red-tailed Hawks, but the adult has a dark patch or band of feathers across the breast which is conspicuous even to the naked eye when the distance from the observer is not over seventy or eighty yards. The tail is grayish, rather than fuscous or brown, and is barred with black. This latter can be seen with a binocular. In addition, only three primaries are notched while in the red-tail there are four.

11. *Buteo platypterus platypterus* (Vieillot). Broad-winged Hawk.

The Broad-winged Hawk is the smallest of the Buteos. This alone as a field character has considerable weight. It is fuscous above in all plumages, adults white beneath, heavily barred with brownish. The tail in the adults is a very important mark of identification. It is black with two white crossbars and a whitish tip. These characteristics can be readily seen, especially with a glass. Immature birds are streaked ventrally, the tail grayish or brown, with five to seven indistinct black bars and a narrow whitish tip.

Insects, small mammals, reptiles, batrachians, and occasionally small birds, make up the diet of the broad-wing. Dr. Fisher considers its greatest damage to be the destruction of beneficial toads and snakes.

Genus ARCHIBUTEO Brehm.

I. Plumage almost entirely black; primaries and tail barred with whitish and grayish. . . . *A. lagopus sancti-johannis.* ROUGH-LEGGED HAWK, black phase.

II. Plumage above, fuscous.

1. Underparts light with dark fuscous or black band across belly.

a. Dark band of belly broken or indistinct. . . . *A. lagopus sancti-johannis.* Normal adult. ROUGH-LEGGED HAWK.

b. Dark band quite distinct and continuous across belly. . . . *A. lagopus sancti-johannis.* Normal immature ROUGH-LEGGED HAWK.

2. Underparts also fuscous, occasionally varied above and below with rufous; no trace of darker band across belly. . . . *A. ferrugineus.* Ferruginous Rough-leg, dark phase.

III. Plumage above rufous; underparts mostly white, barred with rufous on sides and belly. . . . *A. ferrugineus.* Normal FERRUGINOUS ROUGH-LEG.

Both North American species of Rough-legged Hawks occur in Kansas. *A. lagopus sancti-johannis* is a winter resident only, but is fairly abundant during the time of its presence here. *A. ferrugineus* is a common resident of western Kansas, occurring occasionally eastward.

The rough-legs are the only true hawks placed in the class of birds of prey entirely beneficial by Dr. Fisher. They are of medium

size and have long wings which are broad but pointed at the tips. The first four primaries are slightly notched or emarginate but although these feathers separate in flight to a certain extent, the pointed wing effect is not lost. With the exception of the dark tips and a dark patch formed by the under primary coverts distal to the carpal bend of the wing (a conspicuous banner mark when the bird is in flight), the under surfaces of the primaries and secondaries are light and unmarked. The tail is moderately long and square. It is less often spread in flight than that of the red-tail.

These hawks are somewhat crepuscular in habits and are often seen soaring in the manner of the Buteos. They resemble them also in their fondness for remaining motionless for hours on a favorite look-out perch, dropping down occasionally to pick up a meadow mouse or some other small mammal. Their food consists entirely of mammals; meadow mice or voles are especially preferred. Dr. Fisher, after making careful inquiries of experienced field workers in districts where the rough-legs are common, could find no evidence of their ever attacking birds. The examination of stomachs of specimens shot in locations teeming with waterfowl showed them to contain nothing but the remains of meadow mice. In view of this evidence, the statement of some of the older writers to the effect that waterfowl are the favorite prey of rough-legs seems to be erroneous.

12. *Archibuteo lagopus sancti-johannis* (Gmelin). Rough-legged Hawk.

The American Rough-leg is not particularly difficult to identify in the field for its characteristic size, form, and flight behavior at once place it in regard to genus. In the normal phase both adult and immature of the common species are dark brown above though the underparts differ. In the case of the immature, the belly is crossed by a quite distinct dark band which is usually of very dark brown. The band of the adult is broken and much less distinct but clearly discernable with good light and a binocular. The breast is light buff in both cases. A distinct difference in color between breast and belly denotes the common rough-leg in the normal phase. The melanistic phase is almost entirely black, though the tail and primaries are barred with whitish and grayish.

13. *Archibuteo ferrugineus* (Lichtenstein). Ferruginous Rough-leg.

The Ferruginous Rough-leg is sometimes called the "Squirrel Hawk" because of its fondness for spermophiles or ground squirrels which are common pests of the prairie region throughout which it is

found. Its normal coloration is mostly rufous above and white below. The sides and belly are barred with rufous but there are no crossbars on the primaries and secondaries. This will at once distinguish it from the Osprey which is found normally only near water, is much darker above, and has longer wings. The melanistic phase of *A. ferrugineus* is a brown or fuscous coloration, occasionally varied with rufous, both above and below. The solid color beneath, with no trace of the lighter breast and darker belly, makes it distinct from the normal *A. lagopus sancti-johannis*.

Genus AQUILA Brisson.[7]

14. *Aquila chrysaetos* (Linn.). Golden Eagle.

The Golden Eagle is the largest bird of prey included in this paper. It sometimes reaches a length of 40 inches and an expanse of wing approaching eight feet. It is listed by Goss (1891), Snow (1903), and Dyche (1904), as a rare Kansas resident. It now seems, however, that it is only a casual winter visitor, as no nesting records have recently been reported from this region.

The economic status of this eagle depends greatly upon the locality in which it is found and upon the individual. The records which Dyche based upon the examination of thirty stomachs covering a period of twenty-two years are of sufficient interest and significance to be here included:

> Twenty-three of the thirty birds were taken in Kansas. None were taken in April, June, July, August, or September and but one in May.
>
> Eleven had eaten cottontail rabbits.
>
> Seven had eaten jackrabbits.
>
> Nine had eaten prairie-dogs. Five of these had eaten more or less of two different animals, as was shown by the food mass containing more than two fore or hind feet, two tails, or two pairs of ears.
>
> One, Riley County, May, 1883, had in its crop a mass of partly digested stuff that contained feet and some bones and hair, that seemed to belong to a young coyote wolf.
>
> One, October, 1889, from the state of Washington, had been feeding upon a woodchuck.
>
> One, Douglas County, October 7, 1891, had eaten a Franklin's ground squirrel and a cottontail rabbit.
>
> One, March 11, 1894, contained remains of a short-eared owl, *Asio flammeus*, and a cottontail.
>
> One, Wabunsee County, November, 1885, had eaten opossum.
>
> One, Franklin County, January 25, 1902, had fed upon a fox squirrel.
>
> One, November 17, 1904, contained a cottontail rabbit and foot and leg of a Red-tailed Hawk.
>
> Twenty-three of the birds had fed on rabbits or prairie-dogs, the animals most common in the localities where the birds were taken. One hawk and one owl constitute the only traces of bird food. However, but one eagle was taken in the spring and summer months (May) when birds would perhaps be most likely to be taken as food.

---

[7]See key to genera for differences due to age, etc.

During the winter of 1922-23, the writer examined the stomachs of a male and a female from Franklin County, each of which contained a large quantity of the flesh of the cottontail rabbit. A third, a female from Douglas County, had both crop and stomach filled to capacity with the flesh, bones and feathers of a nearly full grown Plymouth Rock chicken.

From the above data, it appears that the Golden Eagle prefers a mammalian diet though it must be kept in mind that all these birds were killed during the fall, winter, or very early spring when they would be less likely to capture birds for food.

Even were they more destructive to the farmers' interests, the Golden Eagles are not common enough to be considered a serious menace to either poultry or game birds. They should be killed only in individual cases when caught in the act of committing a serious depredation.

The key to genera distinguishes the adult *Aquila* from the immature forms of both the *Aquila* and *Haliaeetus*. The adult Golden Eagle is recognizable even at a considerable distance with a binocular by the absence of the white at the base of the tail, the dark feathered tarsi, and the golden brown or buffy of the head and nape. Their immense size, strength of movement, and heavy, broad wings distinguish them in flight. The base of the tail of immature individuals is white and the tarsal feathers light.

Genus HALIAEETUS Savigny.[8]

15. *Haliaeetus leucocephalus leucocephalus* (Linn.). Bald Eagle.

The Bald Eagle in this region seems to be less common than the foregoing species. It is also listed by the older Kansas writers as a rare resident and a fairly common winter visitor. Its favorite food is fish which it secures preferably by robbing the Osprey, though it is perfectly capable of fishing for itself when necessary. Its habits are somewhat similar to those of the buzzard hawks or Buteos in that it occasionally eats carrion when better food is not easily available. In the west it is perhaps to be considered beneficial as it preys upon rabbits, prairie dogs, and other destructive rodents. It is also fond of waterfowl, poultry, young pigs, and lambs, and is capable of doing considerable damage by its activities in the near proximity of a farmstead. Like the Golden Eagle, nevertheless, it should be treated as an individual and given protection as long as it confines its hunting to legitimate prey.

---

[8]See key to genera.

The white head and tail of the adult of this species make it easily recognizable at almost any distance. The immature form closely resembles the Golden Eagle though its plumage may present a more mottled appearance. If one can approach near enough, a task by no means easy, he can, with the aid of a strong binocular, distinguish the young Bald Eagle by its naked tarsi. This part of the leg is fully feathered in all specimens of the genus *Aquila*.

Genus FALCO Linnaeus.[9]

I. Back and tail rufous.
   1. Wing coverts slaty blue; underparts buffy with sides and belly spotted with black. . . . *F. s. sparverius*. Male SPARROW HAWK.
   2. Wing coverts rufous, barred with black: underparts buffy but streaked with dark ochraceous buff. . . . *F. s. sparverius*. Female SPARROW HAWK.

II. Back and tail not rufous; underparts buffy streaked with fuscous or blackish.
   1. Upperparts slaty blue; tail with white tip and three or four distinct whitish bars. . . . *F. c. columbarius*. Adult PIGEON HAWK.
   2. Upperparts fuscous; tail with whitish tip and the three or four whitish bars indistinct. . . . *F. c. columbarius*. Immature PIGEON HAWK.

The falcons are to be easily recognized at any time and in any plumage by their long, narrow, pointed wings which are flat, rigid and unbroken at the end, admirably adapted to swift flight in the open. The middle feathers of the tail are the longest, causing the tail to appear rounded when spread and somewhat pointed when closed.

The long-winged hawks or falcons strike their prey in the air, killing it by a direct blow of the foot. They attain a position above their quarry, dash down headlong, and strike it a powerful blow, following it down and striking again if necessary. They do not cling to their prey.

Falcons are most at home in the open country where their extraordinary powers and skill in flight can be employed to the greatest advantage. Some of the larger species are here of little economic significance, though, if common in this region, would be destructive to wild life and poultry to a considerable degree. Of the two smaller species here discussed, *F. s. sparverius* is by far the more abundant.

16. *Falco columbarius columbarius* Linn. Pigeon Hawk.

The Pigeon Hawk is placed in the class of birds of prey partly beneficial and partly harmful. It is not at all common in this region,

[9]In the Eighteenth Supplement to the A. O. U. Check-List the subspecies of the Sparrow Hawk were placed in a new genus, *Cerchneis*. The key for the genus Falco is based upon the nomenclature of the 1910 Check-List, which included the Sparrow Hawks in this genus. The key will be just as useful, however, in the original form.

occurring only as a migrant, and cannot be considered of much economic significance. It can be distinguished from the Sparrow Hawk, which is about the same size, by its general bluish gray or fuscous color, whereas the Sparrow Hawk is mostly bright rufous. From the Sharp-shinned Hawk it can be distinguished by the form of the wings and tail and manner of flight. Adults are slaty blue above, streaked with fuscous or blackish on a buffy ground color below, and tail distinctly barred with white. Immature birds are fuscous above, similar to the adults below, and with the tail bars much less distinct.

Goss states that it seldom watches from a perch, or hovers in the air as it sights its prey, but as a rule darts rapidly through the thickets, and over the open ground, giving chase to the birds started in its course. It also feeds on squirrels, and other small rodents. Like all others of the falcon family, it strikes rapidly with its wings, never sailing except for a short distance. In flight it is said to greatly resemble the Mourning Dove and the wild pigeon, now extinct; hence the significance of its common name.

17. *Falco sparverius sparverius* Linnaeus. Sparrow Hawk.

This little falcon is the most abundant and most friendly of our diurnal raptores. It is common along roadsides, in open woods, and upland fields, perching upon a dead branch of a tree or a telegraph pole, awaiting the appearance of game beneath. From these lookout perches it is frequently an easy target as it will permit one to approach within easy gun range, sometimes only moving on down the line of poles for a short distance as the hunter draws near. In flight it is characteristically falcon-like, though it sometimes hovers with rapid wing beats above its intended victim, which is usually a grasshopper, before dropping lightly downward and grasping it in its talons. Often it is seen darting this way and that in pursuit of insects in the air. It usually returns to its perch to devour its larger victims.

Though occasionally it attacks young birds and very small poultry, its food is mainly insects and mice. Grasshoppers make up the largest part of the former. Where lizards are abundant they are frequently eaten.

Its nests are placed in hollow trees and sometimes are to be found in the very midst of the residence districts of cities or in parks where many people are continually passing. One nest in particular that came under the observation of the writer was on the campus of Ottawa University in a deserted woodpecker hole in an elm close to one of the buildings. A short time after the young left the nest it was

no uncommon thing, on passing the place, to see five or six of the owlish youngsters sitting in a row on a weather vane.

The young closely resemble the adults in coloration. With a field glass, and under favorable conditions with the unaided eye, one can distinguish the slate gray shoulders and wings of the male from the black-barred rufous wings of the female. The belly and sides of the male are spotted with black while the female is streaked with dark ochraceous-buff.

Genus PANDION Savigny.

18. *Pandion haliaetus carolinensis* (Gmelin). Osprey. Fishhawk.

The Osprey, or Fishhawk, is not considered in Dr. Fisher's paper since its entire food consists of fish and its economic significance is perhaps negative in any locality. In this region its occurrence is only accidental. Its food habits make it obvious that it is most common along the sea coasts and the shores of the larger inland lakes and rivers. Goss states that it manifests no disposition to harm smaller birds of any sort, appearing quite friendly toward them. Small birds are often seen perched beside the Osprey and the Purple Grackles are said to build their nests in the interstices of the outer sticks that lay the foundation of the Osprey's nest, and there hatch and rear their young in safety.

Once seen in flight the Osprey is never to be forgotten. It is somewhat larger and more slender than the Rough-legged Hawk which it slightly resembles in form and shape of wing, but is more swift and graceful in flight. The Osprey is white beneath with a more or less distinct band of brownish spots across the chest and a prominent black line through the eye and extending to the nape. Above it is dark brown, the primaries and secondaries are black-tipped; beneath, it is white with dark crossbars on the larger wing feathers. The crossbars also distinguish it from the rough-leg. The plumage has a peculiar oily odor that persists for many years after death and may be recognized whenever the birds are handled, and is characteristic even of the eggs. Its flight behavior, however, is by far the best field distinction. Goss quotes a splendid description from Wilson of the flight characteristics of the Osprey which is, however, too long to include here.

Two specimens of this species were taken in Franklin County recently; one in 1921, which is now in the collection of the writer, and one in 1922, now in the collection of Ottawa University.

Department of Biology, Ottawa University,
Ottawa, Kansas.

TEN ALL-DAY BIRD CENSUSES FROM DUTCHESS COUNTY, N. Y.

BY MAUNSELL S. CROSBY

Arguments have been advanced in favor of and opposed to all-day bird censuses. Those in favor believe the results useful in showing the abundance of species and individuals during migration waves and at other times. They find that there is a certain zest in the attempt to get as high a total as possible and when one is to be more or less on foot for sixteen hours some such stimulus is useful, not only in routing one out of bed, but also during the latter part of the day.

Those opposed to this method of bird study insist that the desire to get as big a list as possible causes inaccuracy—a bird not well identified being written down rather than left out. They further claim, less convincingly, that such censuses cannot be representative on account of the number of species sure to be missed no matter how hard the observers work.

Even among those who believe in and enjoy census work there are divergent opinions as to the methods which should be employed. One has the idea that a census should be the record of birds found in an area covered on foot by one man in one day, or by two or more keeping together, more than one being preferable so as to corroborate identifications. Another thinks that it is perfectly proper for the party to split, for instance, in going through a wood or around a pond, to join forces later on. Still others select a given area and try to work it as thoroughly as possible, all of it if it is small, or the likeliest spots if it is large. This method has evoked the criticism that one might as well sit down and make a list of all the birds one knows should occur and then stay at home!

Nevertheless, for more than twenty years *Bird Lore* has conducted an annual Christmas Census and the accumulated data are of great value in showing how certain birds are present one year and absent another or common one year and rare the next. There is no question that this effort has met with continued and ever-increasing success and co-operative censuses taken at other times of the year might give even more important results.

The writer has joined the class which uses every means available to cover as much ground as possible, largely through force of circumstances and through his interest in an actual area, even though it is a large one, namely, Dutchess County, N. Y. Dutchess County is situated on the east bank of the Hudson River, its north and south boundaries being respectively one hundred miles and fifty-four miles north of the center of New York City. It averages twenty-odd miles in width,

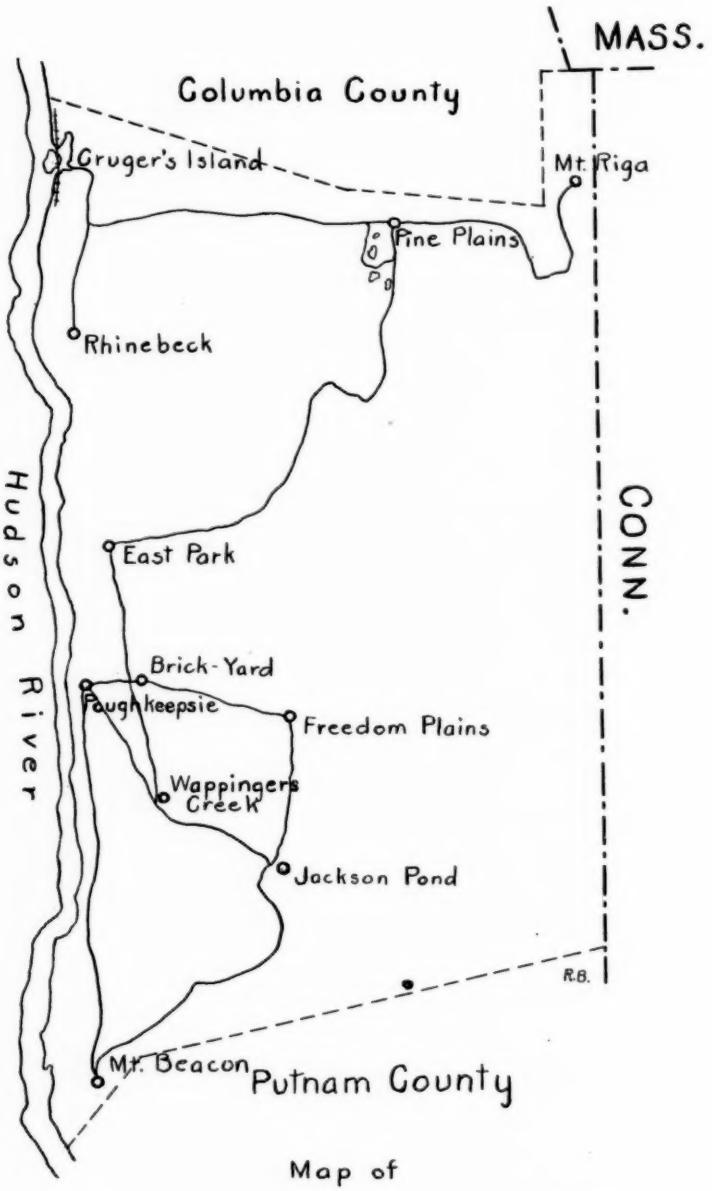
is somewhat mountainous in the east and south and contains many ponds and several creeks and marshes.

In May, 1919, Mr. Allen Frost suggested to me an all-day census. Starting at about six, a list of seventy species was made on my grounds at Rhinebeck. Then a motor was used to go to Cruger's Island and its marshes, eight miles to the north, and the trip was finally wound up at Wappinger's Creek and Brick-yard Swamp, Poughkeepsie, sixteen miles south of Rhinebeck. We were not at that time familiar with much other territory from the ornithological viewpoint and we were pleased to be able to pass the one hundred mark at our first attempt.

The next year there were four in the party, starting before dawn, and although we occasionally split for a short distance, we never really parted company. The ground covered was much the same, only in addition we visited Jackson's Pond, ten miles southeast of Poughkeepsie, so that the census fairly represented the best spots in western Dutchess County.

In 1921 we again followed this route, with occasional stops or detours to some new place on a chance of finding something worth while. Our ambition to cover more fully our self-assigned territory caused us to make up two parties in 1922, using two cars. One party worked the Rhinebeck and Cruger's Island regions and the other Wappinger's Creek, both meeting in the afternoon at Jackson's Pond and then proceeding to Brick-yard Swamp. This split, as well as our increased knowledge of the territory, helped to add to the number of species recorded.

In 1923, the Rhinebeck party went east on leaving Cruger's Island, to Pine Plains where there are several ponds and good warbler woods, thence to East Park, and did not meet the Poughkeepsie group until evening, at Brick-yard Swamp, where notes were compared and totals figured while we waited for the evening flight-song of the Woodcock. The census was taken twice that spring. In 1924 four separate censuses were taken, the last two because of the lateness of the migration. The first two were made by the same groups, in two cars, the first being more or less shortened by the weather, while during the second trip the northern party split temporarily at Pine Plains, the writer visiting a large swamp at Mt. Riga in the extreme northeastern corner of the county. He then returned to Pine Plains, and the usual route was resumed, a violent shower and a breakdown somewhat hampering matters. The southern group this time included Mt. Beacon, in the extreme southwestern corner of the county and Freedom Plains, near the center, in its area. The third trip was performed by only one group, via Rhinebeck, Cruger's Island, Pine Plains and Mt. Riga, and the



Map of

DUTCHESS COUNTY, N.Y.

Miles

0 1 2 4 6 8 10

~ = Routes taken in making Censuses

fourth, although made in two cars, was also carried on mostly as one, the party finally splitting at Pine Plains, two members proceeding to Mt. Riga and the third to Poughkeepsie.

Thus we have finally arranged that two groups can cover quite effectively the entire northern and western parts of the county. It would be desirable to have a third party work the southeastern part, as there is some excellent territory there along Swamp River and some day perhaps it will be done.

At present it is not possible to compare one year's list with another, since we have been steadily expanding. The limit for two cars has now been reached and henceforth there should be something worth while in the comparative records from year to year. One unlooked-for result has been the number of casual records, there being no less than twenty-three species out of one hundred and sixty-three that have only been recorded once. Such birds as the Bufflehead, Old Squaw and Brown Creeper are exceedingly interesting at this season and without the efforts put forth on the "big day" would no doubt be missed. Another interesting fact is that during the 1924 censuses fourteen species were recorded that had not been seen during the censuses of previous years. It is worth mentioning here that at least one hundred and twenty species breed or have bred in the county.

The possibility of overhastiness in identification is, of course, the one thing to fear. By trying always to have at least two in a group this danger is greatly reduced, and if an inexperienced person is in the party his word is never taken without corroboration. No unusual record is ever retained without a thorough review of the facts of the case by the whole party.

Although we made our record list on the first 1923 trip, we feel that we have not reached the limit of possibilities, as in 1924 there were no mid-May waves and the early and late May waves lacked too many species to produce a high total. It is much better to make four or more weekly censuses, as in 1924, but at least one a year, during the biggest May wave, is highly desirable. It would also be a good thing to make similar censuses in September, when the total number of species would, however, be a great deal less. So far we have only made one September attempt and our list was only eighty-one species, but one group making the effort.

Up to the present time we have been mostly fortunate in our weather, but not especially so in meeting waves of migration. As a matter of fact, when once the majority of species have arrived, it seems possible to make a representative list even on off days, provided it is not windy, although the number of individuals present may be very

	May 18, '19	May 16, '20	May 15, '21	May 14, '22	May 13, '23	May 20, '23	May 11, '24	May 18, '24	May 26, '24	May 30, '24	Times Rec'd	Breeds
Pied-billed Grebe	1	1		1	1	1	1	1	1	1	9	*
Loon										1	1	
Herring Gull			1		1	1	1				4	
Black Tern					1						1	
Black Duck	1	1	1		1	1	1	1	1	1	9	*
Wood Duck							1	1			2	*
Greater Scaup							1	1			2	
Lesser Scaup		1		1	1						3	
Bufflehead									1		1	
Old Squaw					1						1	
Ruddy Duck					1						1	
Mute Swan				1	1	1	1	1	1	1	7	*
American Bittern	1	1	1		1	1	1		1	1	8	*
Great Blue Heron	1						1			1	3	
Green Heron	1	1	1	1	1	1	1	1		1	9	*
Black-crowned Night Heron	1	1	1	1	1	1	1	1		1	9	*
Virginia Rail			1		1	1	1	1	1	1	7	*
Sora					1		1			1	3	*
Florida Gallinule	1	1	1	1	1	1	1	1	1	1	10	*
American Woodcock	1	1	1		1	1	1	1	1	1	9	*
Wilson's Snipe			1		1		1				3	
Least Sandpiper			1	1	1	1				1	5	
Semipalmated Sandpiper				1							1	
Sanderling									1		1	
Greater Yellowlegs			1	1	1						3	
Lesser Yellowlegs					1						1	
Solitary Sandpiper	1	1	1	1	1	1	1		1		8	
Spotted Sandpiper	1	1	1	1	1	1	1	1	1	1	10	*
Killdeer	1	1	1	1	1	1	1	1	1	1	10	*
Semipalmated Plover				1		1					2	
Bob-white				1							1	*
Ruffed Grouse				1	1		1	1		1	5	*
Ring-necked Pheasant	1	1	1	1	1	1	1	1	1	1	10	*
Mourning Dove		1	1	1	1	1	1	1	1	1	9	*
Marsh Hawk	1	1		1	1	1	1		1	1	8	*
Sharp-shinned Hawk	1	1			1	1	1	1		1	7	*
Cooper's Hawk	1	1	1		1	1	1	1	1	1	9	*
Red-tailed Hawk			1		1	1	1	1	1	1	7	*
Red-shouldered Hawk	1	1	1	1	1	1	1	1	1	1	10	*
Broad-winged Hawk	1										1	*
Bald Eagle		1		1	1	1		1		1	6	*
Sparrow Hawk	1	1	1	1	1	1	1	1	1	1	10	*
Osprey	1			1	1	1	1	1		1	7	*
Barn Owl								1			1	*
Barred Owl	1	1	1	1	1	1	1				7	*
Screech Owl	1						1				2	*
Yellow-billed Cuckoo				1	1	1	1	1	1	1	7	*
Black-billed Cuckoo			1	1	1	1		1	1	1	7	*
Belted Kingfisher	1	1	1	1	1	1	1	1	1	1	10	*
Hairy Woodpecker	1	1	1	1	1	1	1	1	1	1	10	*
Downy Woodpecker	1	1	1	1	1	1	1	1	1	1	10	*
Red-headed Woodpecker		1	1	1	1	1		1			6	*
Northern Flicker	1	1	1	1	1	1	1	1	1	1	10	*
Yellow-bellied Sapsucker					1						1	
Whip-poor-will			1		1		1	1		1	5	*

	May 18, '19	May 16, '20	May 15, '21	May 14, '22	May 13, '23	May 20, '23	May 11, '24	May 18, '24	May 26, '24	May 30, '24	Times Rec'd	Breeds
Nighthawk	1		1	1	1	1		1	1	1	8	*
Chimney Swift	1	1	1	1	1	1	1	1	1	1	10	*
Ruby-throated Hummingbird			1	1	1	1	1	1	1	1	8	*
Kingbird	1	1	1	1	1	1	1	1	1	1	10	*
Crested Flycatcher	1	1	1	1	1	1	1	1	1	1	10	*
Phoebe	1	1	1	1	1	1	1	1	1	1	10	*
Olive-sided Flycatcher			1						1	1	3	
Wood Pewee	1	1	1	1	1	1	1	1	1	1	10	*
Yellow-bellied Flycatcher						1	1	1	1	1	5	
Acadian Flycatcher	1	1	1		1		1	1			6	
Alder Flycatcher		1				1			1	1	4	*
Least Flycatcher	1	1	1	1	1	1	1	1	1	1	10	*
Blue Jay	1	1	1	1	1	1	1	1	1	1	10	*
Crow	1	1	1	1	1	1	1	1	1	1	10	*
Starling	1	1	1	1	1	1	1	1	1	1	10	*
Bobolink	1	1	1	1	1	1	1	1	1	1	10	*
Cowbird	1	1	1	1	1	1	1	1	1	1	10	*
Red-winged Blackbird	1	1	1	1	1	1	1	1	1	1	10	*
Meadowlark	1	1	1	1	1	1	1	1	1	1	10	*
Orchard Oriole				1			1				2	*
Baltimore Oriole	1	1	1	1	1	1	1	1	1	1	10	*
Rusty Blackbird		1	1	1	1		1				5	
Purple Grackle	1	1	1	1	1	1	1	1	1	1	10	*
Bronzed Grackle							1	1	1	1	4	*
Purple Finch	1	1		1	1	1	1	1		1	8	
House Sparrow	1	1	1	1	1	1	1	1	1	1	10	*
Goldfinch	1	1	1	1	1	1	1	1	1	1	10	*
Pine Siskin		1				1	1	1			4	
Vesper Sparrow	1	1	1	1	1	1	1	1	1	1	10	*
Savannah Sparrow				1	1	1				1	4	*
Grasshopper Sparrow	1	1	1	1	1	1	1	1	1	1	10	*
Henslow's Sparrow										1	1	*
White-crowned Sparrow		1	1	1	1	1					5	
White-throated Sparrow	1	1	1	1	1	1	1				7	
Chipping Sparrow	1	1	1	1	1	1	1	1	1	1	10	*
Tree Sparrow					1						1	
Field Sparrow	1	1	1	1	1	1	1	1	1	1	10	*
Junco							1				1	*
Song Sparrow	1	1	1	1	1	1	1	1	1	1	10	*
Lincoln's Sparrow		1		1		1			1		4	
Swamp Sparrow	1	1	1	1	1	1	1	1	1	1	10	*
Towhee	1	1	1	1	1	1	1	1	1	1	10	*
Rose-breasted Grosbeak	1	1	1	1	1	1	1	1	1	1	10	*
Indigo Bunting	1			1		1	1	1	1	1	7	*
Scarlet Tanager	1		1	1	1	1	1	1	1	1	9	*
Purple Martin	1		1	1	1	1	1	1	1	1	9	*
Cliff Swallow		1	1		1		1	1	1	1	7	*
Barn Swallow	1	1	1	1	1	1	1	1	1	1	10	*
Tree Swallow	1	1	1	1	1	1	1	1	1	1	10	*
Bank Swallow	1	1	1	1	1	1	1	1	1	1	10	*
Rough-winged Swallow	1			1	1	1	1	1	1	1	8	*
Cedar Waxwing			1		1	1	1		1	1	6	*
Red-eyed Vireo	1	1	1	1	1	1	1	1	1	1	10	*
Warbling Vireo	1	1	1	1	1	1		1	1	1	9	*
Yellow-throated Vireo	1	1	1	1	1	1	1	1	1	1	10	*

	May 18, '19	May 16, '20	May 15, '21	May 14, '22	May 13, '23	May 20, '23	May 11, '24	May 18, '24	May 26, '24	May 30, '24	Times Rec'd	Breeds
Blue-headed Vireo	1	1		1	1	1	1	1			7	*
White-eyed Vireo		1	1	1	1	1		1	1	1	8	*
Black and White Warbler	1	1	1	1	1	1	1	1	1	1	10	*
Worm-eating Warbler	1	1	1	1	1		1	1	1	1	9	*
Blue-winged Warbler		1			1	1	1	1			5	*
Brewster's Warbler					1	1		1			3	*
Lawrence's Warbler						1					1	*
Golden-winged Warbler	1	1	1	1	1	1	1	1	1	1	10	*
Nashville Warbler	1	1	1	1	1	1	1	1			8	*
Tennessee Warbler	1	1	1	1	1	1	1	1	1		9	
Northern Parula Warbler	1	1	1	1	1	1	1	1	1		9	
Cape May Warbler	1	1	1	1	1		1	1	1		8	
Yellow Warbler	1	1	1	1	1	1	1	1	1	1	10	*
Black-throated Blue Warbler	1	1	1	1	1	1	1	1	1	1	10	*
Myrtle Warbler	1	1	1	1	1	1	1	1	1		9	
Magnolia Warbler	1	1	1	1	1	1	1	1	1	1	10	
Cerulean Warbler				1	1	1		1	1	1	6	*
Chestnut-sided Warbler	1	1	1	1	1	1	1	1	1	1	10	*
Bay-breasted Warbler	1		1	1	1	1		1	1	1	8	
Blackpoll Warbler	1		1		1	1		1	1	1	7	
Blackburnian Warbler	1	1	1	1	1	1	1	1	1	1	10	
Black-throated Green Warbler	1	1	1	1	1	1	1	1	1	1	10	*
Pine Warbler	1	1								1	3	*
Yellow Palm Warbler							1				1	
Prairie Warbler								1			1	*
Ovenbird	1	1	1	1	1	1	1	1	1	1	10	*
Water-Thrush	1		1	1	1	1	1	1	1	1	9	
Louisiana Water-thrush	1	1	1	1	1	1	1	1	1	1	10	*
Mourning Warbler						1		1	1	1	4	
Maryland Yellow-throat	1	1	1	1	1	1	1	1	1	1	10	*
Yellow-breasted Chat	1	1	1	1	1	1	1	1	1	1	10	*
Hooded Warbler								1			1	*
Wilson's Warbler	1	1	1	1	1	1	1		1	1	9	
Canada Warbler	1	1	1	1	1	1		1	1	1	9	
Redstart	1	1	1	1	1	1	1	1	1	1	10	*
Pipit			1								1	
Catbird	1	1	1	1	1	1	1	1	1	1	10	*
Brown Thrasher	1		1	1	1	1	1	1	1	1	9	*
Carolina Wren				1							1	
House Wren	1	1	1	1	1	1	1	1	1	1	10	*
Short-billed Marsh Wren								1			1	*
Long-billed Marsh Wren	1	1	1	1	1	1	1	1	1	1	10	*
Brown Creeper							1				1	*
White-breasted Nuthatch	1	1	1	1	1	1	1	1	1	1	10	*
Red-breasted Nuthatch				1				1			2	
Chickadee	1	1	1	1	1	1	1	1	1	1	10	*
Ruby-crowned Kinglet		1	1		1		1				4	
Wood Thrush	1	1	1	1	1	1	1	1	1	1	10	*
Veery	1	1	1	1	1	1	1	1	1	1	10	*
Gray-cheeked Thrush	1	1	1	1		1		1	1	1	8	
Olive-backed Thrush	1	1	1	1	1	1	1	1	1	1	10	
Robin	1	1	1	1	1	1	1	1	1	1	10	*
Bluebird	1	1	1	1	1	1	1	1	1	1	10	*
	102	102	109	114	129	120	119	119	107	114		

low. We have not been sufficiently methodical in counting individuals but hope to perfect this phase of the census.

The following have made one or more censuses with the writer: Allen Frost, George W. Gray, Charles W. Moulton, Robert Cushman Murphy, Leonard R. Donne, Ray Guernsey, Laidlaw Williams, Jackson Ketcham, Walter Granger, Edmund Platt, and Ludlow Griscom.

In the following table the validity of the semi-domesticated Mute Swans may well be questioned. They are included pending a decision as to their status. Both subspecies of the grackle are given as if they were separate species and Brewster's and Lawrence's Warblers are included as being of interest. Strictly speaking, neither of these last two should be counted when both the Blue-winged and the Golden-winged Warblers occur on a list. There are at least eleven other possible species not yet listed, either local breeders or else transients which have at one time or another been recorded between May 11 and 30, but not on a census day: Least Bittern, Coot, Pectoral Sandpiper, Hungarian Partridge, Long-eared Owl, Great Horned Owl, Prairie Horned Lark, Fish Crow, Philadelphia Vireo, Kentucky Warbler and Hermit Thrush.

RHINEBECK, NEW YORK.

STATISTICS ON THE HOUSE WREN

BY O. M. BRYENS

Much is being said nowadays about the misdemeanors of the House Wren, and I wish to state that I am in favor of the House Wren.

The houses which are being put up for these wrens have an entrance hole one inch in diameter. This is to protect the wren from the English Sparrow. In the cities and towns where there are many bird house boxes, I find that they are surrounded by hordes of English Sparrows. It is my opinion that were it not for the House Wrens there would be very few native birds nesting in bird houses where the English Sparrows are not driven away.

In 1915, while residing at McMillan, Michigan, I put up my first bird house, and kept adding until I had thirty-nine of them in 1924. The following table shows the number of bird families which nested on my premises year by year since 1915. It also shows that there was no decrease in the native birds which could be attributed to the presence of the House Wren.

The totals in the bottom line indicate the number of families, or nests, of all kinds for each year. And it will be seen that the number of families increased regularly, notwithstanding an increasing number of House Wrens.

	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Sparrow Hawk								1		
Northern Flicker..					1	1	1			
Purple Martin.....								7	14	25
Barn Swallow.....				1	1	1	2	1	2	3
Tree Swallow.....				1	0	1	1	2	5	7
Bluebird		1	1	2	3	5	4	2	2	3
House Wren	1	3	3	4	3	2	3	4	7	0
Species nesting.....	1	2	2	4	4	5	5	6	5	4
Total nestings	1	4	4	8	8	10	11	17	30	38

I may say that the flickers did not nest in the bird boxes, but made cavities in stumps or stubs near the home of the House Wrens, without molestation by the latter. The absence of the Tree Swallows in 1919 is accounted for by a clash between them and the Bluebirds. The Tree Swallows had possession when the Bluebirds came to inspect the quarters; a battle ensued in which the Bluebirds were victorious, and the swallows left the place. The table shows a decrease in the Barn Swallows breeding in 1922. This was due to English Sparrows, which had taken possession of one of the 1921 nests; however, the sparrows were caught and did not further disturb any of the birds.

The English Sparrow was also the cause of several years delay in getting the colony of Purple Martins established. The Purple Martin was the first species to take control of the house put up in 1915. The English Sparrows drove them out before I realized what was going on. The sparrows were shot, but the martins did not nest in the house until 1922. Each spring from 1916 to 1921 the martins would visit my place and spend three or four hours a day, then leave; except that the length of the martins' visits seemed to incrase slightly until they finally gained control.

Bluebirds were most numerous in 1920, but dropped off in succeeding years, as shown in the table. This setback was not due to the House Wren, for the wrens did not use any house that was claimed by the Bluebirds; and in fact, Bluebirds were not as much in evidence in those years.

We had the House Wrens in 1915, the first year that boxes were put up. They arrived that year about a week or ten days after the Purple Martins had been forced out. Thereafter they made a rather steady increase until last year, 1924, when none at all occupied the wren boxes. The explanation of this complete absence is still lacking. Nowhere that year, so far as I know, were other bird houses put up which could have drawn our wrens to another locality. I would say, however, that these wrens were found in smaller numbers that year even in the brush and woodlands in our vicinity.

Surely the House Wren did no harm to the Bluebirds during the ten years of my experience. For did not the wrens decrease and the Bluebirds increase during the two years following 1918? If the House Wrens were harming the other species of birds why did the latter show such a steady increase in the number of pairs nesting on my premises? Because there was such an increase I believe that the wrens were not doing the harm with which they are charged.

All of my bird houses have been erected on poles from ten to twenty-six feet high. All but three of these poles have been fastened to fence posts. The houses which are in the open field average about 100 feet apart, and are all single-room houses; while those houses which are near the buildings and yard are as close as ten feet. When adding more houses I generally favored the species that increased the year before. Perhaps this may be the reason why the House Wrens gave me no trouble; there were always plenty of houses, and there existed no necessity for driving away other species.

Earlier in this paper I have discussed the decrease in the Bluebirds after 1920, and have expresseed the opinion that the House Wrens had nothing to do with it. Passing now from this negative consideration I may introduce a possible factor from the positive angle. In 1920 there were five pairs of Bluebirds nesting on the premises, but among the five pairs there were only four males. One of the males looked after, and fed, two females. These two females had their nests about 200 feet apart. After a severe rain and wind storm I noticed the absence of activity about one of these two nests. Upon examination I found the young dead in the nest. It seemed evident that the rain had beaten in upon the young and had caused their death. The loss of this brood of young may have had something to do with the decrease in the following years.

On the other hand, in the three families of House Wrens in 1921 there was only one male. Here also a rain storm caused the loss of the second brood of one of these families. Nevertheless, in 1922 we had four families of wrens with four males. These facts may not have any direct bearing upon the problem being considered, but perhaps they should be included in a full statement.

I have endeavored to explain the fluctuations in the number of pairs breeding from year to year, and I can not find that the wrens were guilty of causing the loss of any birds which otherwise would have nested on my place.

THREE RIVERS, MICHIGAN.

BAD HABITS OF THE HOUSE WREN

BY MRS. CHARLES F. WEIGLE

Miss Althea R. Sherman who, in the WILSON BULLETIN for March, has come valiantly to the aid of our song birds by telling the unvarnished truth about the House Wren, should not be left to wage the battle alone. It is a situation which concerns us all, and which will vitally affect those who come after us.

We who have learned for ourselves the real nature of this miniature *le diable*, about which so much fake sentiment has been woven by the alluring name "Jennie Wren", should rally to Miss Sherman's support; not only that her statements may be verified, but still more that a last stand shall be taken to protect the remnant of our bird heritage against the most insidious, most treacherous, and most persistent enemy that it possesses—the common House Wren.

Common is the exact word. No other birds, except the English Sparrows and the grackles, exceed it in numbers and general distribution; none, except the Robin, is so widely known and so little understood. "Having eyes, we see not", continuing to take it at its face value—apparently a busy little housewife, a tireless destroyer of noxious insects, a fearless, little, feathered friend, (and how that word "little" always appeals to our sympathies!) that accepts any hospitality offered it; is equally at home in an old shoe, or an elaborate bird box; eats no fruit, and fills the livelong day with a vibrant, bubbling song, which seems the very embodiment of cheering good-will. The children's friend, too! How much that means to each one of us! They can easily make wren boxes; and prizes are offered for these boxes by schools, societies, newspapers, and department stores. And every child can be reasonably sure that one pair of wrens will take possession of his handiwork. But have you ever noticed that only one box is occupied, no matter how many you put up? The rest are partially filled with sticks; or, if the box is intended for another bird, the larger hole is skillfully occluded with projecting sticks, so as to prevent the entrance of other birds. The territorial demands of the House Wren include the whole neighborhood. "The cute little thing", you say. "He doesn't intend that anything shall drive him out." Or, failing in the stick scheme, have you noticed how he daily inspects the other boxes, darting in and out, as you think, in a most friendly fashion, bent on a neighborly visit?

It is tragic to shatter an illusion. Necessity alone should impel one to do it; but let us go a little farther, and watch these cunning traits on our own account. Suppose, by some happy chance, a pair of

Bluebirds, the most Heavenly of all created things, have come to nest with you. You watch their joy at finding a house suited to their needs, their exquisite home building, mingled with soft love notes, as the male calls to his mate in ecstatic, warbling tones, "Here, my dear, right here, right here"; then she answers in low minor tones (D flat and C on the musical staff), "dearie, dearie", and you think never were birds so appealing, so beautiful.

After a few days you cautiously lift the hinged lid of their box, while they are absent—unfortunately the parent bird, unless taught by bitter experience, leave the eggs unguarded before incubation and later, when the female goes to feed—and look in, and there they are, a soft blue, as dainty and delicate as the breast of the mother bird, and you take comfort in thinking how safe they are, for you have no cats, or known dangers, about. What then, are your feelings, when perhaps in a day or two you notice the Bluebirds in apparent distress, warbling anxious notes; going in and out of the box, sitting quietly nearby, then in and out again, until finally you decide to investigate. There on the ground are the precious blue eggs, not eaten—just smashed, or pierced with a tiny, round hole. And at last the unhappy birds fly slowly away, never to return. Then you feel the real sadness of the whole tragedy.

What could have done it—this work of destruction? The secrecy of it, the mystery, is uncanny, it haunts you. Such an experience came to us, on our own premises, for three consecutive summers, before the perpetrator was discovered. There was no one to tell me, and I had not then read the authorities to whom Miss Sherman refers. How many have? There are still many bird lovers, ardent conservationists, who harbor the House Wren, many who, having read, will not believe, or who will not observe for themselves.

During those seasons the eggs of five pairs of Bluebirds, the fledgelings of two, and the eggs of a pair of titmice, were thus destroyed on our premises. Two of the fledgelings had their eyes gouged out. Three friends reported similar experiences—one found a deserted Cardinal's nest with pierced eggs in it. A professor at Purdue University, a bird lover, came over to investigate. We decided that blackbirds had done it, or possibly the English Sparrows, though they were kept down by constantly trapping. It was not until the following summer, my common sense and suspicions being now thoroughly aroused, and on constant watch, that I *saw* a House Wren fly from a titmouses' box with an egg in its beak. There were no wrens nesting on our place, so the House Wren's "territory" is not limited to one's own premises. Since that time I have *seen* the fledge-

lings of Bluebirds torn from the nest by the House Wren, which then flew down and thrust its sharp beak into the eyes of the young birds. I have a friend who has seen the same thing happen on her grounds. The cruelty and wide range of destructiveness of this bird can not be overestimated. Unless a crusade against it is effectively carried out, not merely by taking down the wren boxes, but by materially reducing the numbers, the cavity nesting birds are doomed, and open nests are endangered. The truth must be faced, and then acted upon. A passive love for our birds amounts to little more than the words which so ardently express it. True affection for any object manifests itself in action, self-sacrifice, and service. It is not enough to provide food, water, shelter, and nesting places, now so rapidly disappearing; birds must be given absolute protection, militant protection, when they are invited to our premises, and we are obligated to acquire an accurate knowledge of all their enemies.

Three years ago we purchased an old homestead of ten acres, long unoccupied, neglected, and run down; but beautiful in situation, with hills and hollows, giant hickory and walnut trees, vines and shrubs, pastures, and a decaying orchard. Here we expected to find our native birds in abundance. But we found it inhabited almost exclusively by squirrels, rabbits, owls, jays, and wrens. They nested in the crevices about the old buildings, in holes in rotting fences and trees. No other species, except Robins, were breeding upon the place. But today, as I look from the window, it does not altogether belie its name, "Birds Acre".

As I write a pair of Cardinals are bringing one of their young (the other was a Cowbird, caught in a trap) to the sunflower seed on the window shelf; titmice, with three young, are also darting to it in frolicsome flight; two pairs of Catbirds are carrying graham and corn bread crumbs to their fledgelings; and the brilliant Carolina Woodpecker,* with his zebra stripes, is initiating his drab-colored young into the pleasures of the suet tree, where the downy, the hairy, and the nuthatch revel in winter. And in the gravel bottomed pools on the hillside, fed by running water, the Goldfinch, the Indigo Bunting, the Mourning Dove, the Flicker, the Song Sparrow, and the Chipping Sparrow are bathing; while at the farthest one a Yellow-billed Cuckoo raises first one wing, then the other, as he dips his creamy breast in the clear water. In their box on the sycamore tree Great-crested Flycatchers are busy with their young. Bewick's Wrens are established on the back porch, a Meadowlark walks briskly to the pool, and in

*Butler gives this as a synonym for the Red-bellied Woodpecker.—Ed.

their box on the rose trellis a pair of Bluebirds are rearing a belated brood. Will they all raise their young? They will! For not a squirrel or cat is to be found, not a wren or an owl is to be heard over the length and breadth of this place, and never again will be, if daily vigilance can prevent it. It has not been an easy task, and is not, now. At times it seems as if I could not go on with the burden; but we are here to provide a refuge for the remnant of song birds that is left; and to leave, when our days are over, at least as much as we have enjoyed of the spiritual, mystical beauty of the birds, of the flash of jewelled wings, of the choral songs at dawn that call us out of sleep, and of the clear, elusive notes of the Wood Thrush, as evening comes, and darkness falls.

LAFAYETTE, INDIANA.

BIRDS OF FULTON COUNTY, KENTUCKY

BY DR. L. OTLEY PINDAR.

[Concluded from the WILSON BULLETIN, June, 1925, page 88.]

Pine Grosbeak—*Pinicola enucleator leucura*. Was seen in February and March, 1888. (See the *Auk*, Vol. V, 1888, page 321).

Purple Finch—*Carpodacus purpureus purpureus*. A rare migrant.

Redpoll—*Acanthis linaria linaria*. A common winter visitant, coming only in the coldest weather, usually in January.

Goldfinch—*Astragalinus tristis tristis*. A common resident.

Pine Siskin—*Spinus pinus*. A common winter habitant.

Lapland Longspur—*Calcarius lapponicus lapponicus*. A rare and irregular winter visitant.

Vesper Sparrow—*Pooecetes gramineus gramineus*. A common migrant.

Savannah Sparrow—*Passerculus sandwichensis savanna*. A common migrant.

Grasshopper Sparrow—*Ammodramus savannarum australis*. A rather common migrant, and possibly a summer habitant.

Henslow's Sparrow—*Passerherbulus henslowi henslowi*. A rare migrant, and possibly a rare summer habitant.

Lark Sparrow—*Chondestes grammacus grammacus*. A rare summer habitant.

White-crowned Sparrow—*Zonotrichia leucophrys leucophrys*. A rather rare winter habitant.

White-throated Sparrow—*Zonotrichia albicollis.* A common winter habitant.

Tree Sparrow — *Spizella monticola monticola.* An uncommon winter habitant.

Chipping Sparrow — *Spizella passerina passerina.* A resident; common in summer, rare in winter.

Field Sparrow—*Spizella pusilla pusilla.* A common resident.

Slate-colored Junco—*Junco hyemalis hyemalis.* A common winter habitant.

Bachman's Sparrow—*Peucaea aestivalis bachmani.* A rare summer habitant.

Song Sparrow—*Melospiza melodia melodia.* A common winter habitant.

Lincoln's Sparrow—*Melospiza lincolni lincolni.* A rare migrant.

Swamp Sparrow—*Melospiza georgiana.* A common migrant, and rare winter habitant.

Fox Sparrow—*Passerella iliaca iliaca.* A common winter habitant.

Towhee—*Pipilo erythrophthalmus erythrophthalmus.* A common winter habitant; rare in summer.

Cardinal—*Cardinalis cardinalis cardinalis.* A common resident.

Rose-breasted Grosbeak — *Hedymeles ludovicianus.* "Migrant. Not common." Fairly common migrant, and rare summer habitant, 1892-3.

Blue Grosbeak—*Guiraca caerulea caerulea.* A very rare summer habitant.

Indigo Bunting—*Passerina cyanea.* A common summer habitant.

Painted Bunting—*Passerina ciris.* One male was seen several times during a period of ten days in August, 1892.

Dickcissel—*Spiza americana.* "Very rare migrant." A rare summer habitant in 1892-3.

Scarlet Tanager—*Piranga erythromelas.* "Very rare. I have seen three males, one in June, 1884, one on August 7, 1887, and one on August 13, 1888. I killed a female on October 2, 1888." Two males were observed in the spring of 1890. In 1893 the species was slightly more numerous during the migrations, and at least one pair remained through the summer, though no nest was found.

Summer Tanager—*Piranga rubra rubra.* A common summer habitant.

Purple Martin—*Progne subis subis.* A common summer habitant.

Cliff Swallow—*Petrochelidon lunifrons lunifrons.* A rare summer habitant.

Barn Swallow—*Hirundo erythrogastra.* A common summer habitant.

Tree Swallow—*Iridoprocne bicolor.* A rare summer habitant.

Bank Swallow—*Riparia riparia.* "Common summer resident." Not quite so common in 1892-3.

Rough-winged Swallow—*Stelgidopteryx serripennis.* A common summer habitant.

Cedar Waxwing—*Bombycilla cedrorum.* "Common. Occurs irregularly a any time of the year." Was not seen in 1890. In 1892-3 it was noted at irregular intervals in every month except June, 1892, and August, 1893. Common whenever present. No evidence or indication of its breeding.

Northern Shrike—*Lanius borealis.* "I have never seen any of the shrikes here, but have Professor Caldwell's authority for the occurrence of *L. borealis* in winter." Prof. B. C. Caldwell was a keen and competent observer; I have no doubt as to the correctness of the above statement, and therefore retain this species in the list.

Loggerhead Shrike—*Lanius ludovicianus ludovicianus.* Very rare on the higher ground near "The Scatters", in August, 1893.

Migrant Shrike—*Lanius ludovicianus migrans.* One was seen in an old orchard at the edge of town (Hickman) on April 10, 1890. In 1892 it was a rare migrant; in 1893 it was a rare migrant and very rare summer habitant.

Red-eyed Vireo—*Vireosylva olivacea.* A common summer habitant.

Philadelphia Vireo—*Vireosylva philadelphia.* A rare migrant.

Warbling Vireo—*Vireosylva gilva gilva.* A rare migrant, and probably a very rare summer habitant.

Yellow-throated Vireo—*Lanivireo flavifrons.* A rather rare summer habitant.

Blue-headed Vireo—*Lanivireo solitarius solitarius.* A very rare migrant, only noted in the spring of 1893.

White-eyed Vireo—*Vireo griseus griseus.* "Common migrant." A common migrant and rare summer habitant.

Bell's Vireo—*Vireo belli belli.* Two were seen on July 16, 1887, and one of them was secured.

Black and White Warbler—*Mniotilta varia.* An uncommon summer habitant.

Prothonotary Warbler—*Protonotaria citrea.* A rather rare summer habitant.

Swainson's Warbler—*Lymnothlypis swainsoni.* "I am certain that I saw one August 29, 1887, but my only shell was loaded with No. 1 buckshot, and I failed to secure it. However, I have no doubt as to its identity." A male was shot on April 28, 1890. None were seen in 1892. It was a very rare summer habitant, in 1893, in "The Scatters".

Worm-eating Warbler—*Helmintheros vermiverus.* A rare summer habitant.

Blue-winged Warbler—*Vermivora pinus.* A very rare migrant.

Golden-winged Warbler—*Vermivora chrysoptera.* A rare migrant. In 1887, I saw it as late as November 14.

Nashville Warbler — *Vermivora ruficapilla ruficapilla.* A rare migrant.

Orange-crowned Warbler—*Vermivora celata celata.* A casual migrant, noted only in the fall of 1892.

Tennessee Warbler—*Vermivora peregrina.* "Rare migrant." It was a rather common migrant in 1892-3, being very common between the 20th and 30th of September, 1893.

Parula Warbler — *Compsothlypis americana* — probably the subspecies *pusilla.* A common migrant.

Cape May Warbler—*Dendroica tigrina.* A rare casual migrant, noted only in the spring of 1893.

Yellow Warbler—*Dendroica aestiva aestiva.* "Formerly a common summer resident, but for the past two or three years quite a rare migrant." A rare migrant in 1890 and 1892; a rather rare migrant and rare summer habitant in 1893.

Black-throated Blue Warbler — *Dendroica caerulescens caerulescens.* A very rare migrant in the spring of 1890, and spring and fall of 1893.

Myrtle Warbler—*Dendroica coronata.* A common migrant. Possibly a rare winter habitant, for I killed one January 16, 1886.

Magnolia Warbler—*Dendroica magnolia.* A few were noted in the latter part of April, 1890. A rare migrant in 1892, and a rather common migrant in 1893.

Cerulean Warbler—*Dendroica cerulea.* A rare migrant and possibly a summer habitant.

Chestnut-sided Warbler—*Dendroica pensylvanica.* A rather rare migrant.

Bay-breasted Warbler—*Dendroica castanea.* A very rare migrant.

Black-poll Warbler—*Dendroica striata.* A rare migrant.

Blackburnian Warbler—*Dendroica fusca.* "Very rare. Two seen July 25, 1888." A rare migrant in 1892-3.

Sycamore Warbler—*Dendroica dominica albilora.* A rather rare summer habitant.

Black-throated Green Warbler—*Dendroica virens.* A common migrant.

Pine Warbler—*Dendroica vigorsi.* A rare migrant.

Palm Warbler—*Dendroica palmarum palmarum.* A rare migrant.

Prairie Warbler—*Dendroica discolor.* A rare migrant and possibly a summer habitant.

Oven-bird—*Seiurus aurocapillus.* A common summer habitant.

Water-Thrush—*Seiurus noveboracensis noveboracensis.* A common migrant.

Grinnell's Water-Thrush—*Seiurus noveboracensus notabilis.* A migrant, not so common as the preceding.

Louisiana Water-Thrush—*Seiurus motacilla.* A fairly common migrant and rare summer habitant.

Kentucky Warbler—*Oporornis formosa.* A rare summer habitant. One was seen on November 28, 1886.

Connecticut Warbler—*Oporornis agilis.* A casual migrant, only noted during the spring migration of 1892.

Mourning Warbler—*Oporornis philadelphia.* A rare migrant.

Maryland Yellow-throat—*Geothlypis trichas trichas.* A common summer habitant.

Yellow-breasted Chat—*Icteria virens virens.* "Very rare. The only one I have seen was killed . . September 23, 1887." This is an error. This notation refers to the Canada Warbler. The Yellow-breasted Chat is a common summer habitant.

Hooded Warbler—*Wilsonia citrina.* A rare migrant and very rare summer habitant.

Wilson's Warbler—*Wilsonia pusilla pusilla.* A migrant, slightly more common than the preceding species.

Canada Warbler—*Wilsonia canadensis.* See notation under Yellow-breasted Chat. No other records.

Redstart—*Setophaga ruticilla.* A common migrant. It has been noted early in August.

Pipit—*Anthus rubescens.* A rare migrant.

Mockingbird—*Mimus polyglottos polyglottos.* A common resident; not quite so common during the winter.

Catbird—*Dumetella carolinensis.* A common summer habitant. In 1887 it arrived from the south on February 22.

Brown Thrasher—*Toxostoma rufum.* A common summer habitant. Several were seen in heavy canebrakes near Island No. 8, December 27-28, 1887.

Carolina Wren—*Thryothorus ludovicianus ludovicianus.* A common resident.

Bewick's Wren—*Thryomanes bewicki bewicki.* "Very rare, only seen in winter."

House Wren—*Troglodytes aedon aedon.* "Common resident."

Winter Wren—*Nannus hiemalis hiemalis.* "Very rare. My only note on this species is one killed . . in December, 1885."

The quoted notations under the last three species are all errors. Bewick's Wren is a common resident. It was a specimen of the House Wren which was killed and brought to me in 1885. The Winter Wren is a rare winter visitant, noted in the winter of 1892-3 as a rare winter habitant, but more common than it had formerly been.

Short-billed Marsh Wren—*Cistothorus stellaris.* A rare migrant.

Long-billed Marsh Wren—*Telmatodytes palustris palustris.* A rare migrant. One was seen as early as February 26, 1888.

Brown Creeper—*Certhia familiaris americana.* A common winter habitant.

White-breasted Nuthatch—*Sitta carolinensis carolinensis.* A common resident.

Red-breasted Nuthatch — *Sitta canadensis.* A common winter habitant.

Tufted Titmouse—*Baelophus bicolor.* A common resident.

Chickadee—*Penthestes atricapillus atricapillus.* A rare winter visitant.

Carolina Chickadee—*Penthestes carolinensis carolinensis.* A common resident.

Golden-crowned Kinglet—*Regulus satrapa satrapa.* A fairly common migrant and occasional winter visitant. One was seen January 27, 1888.

Ruby-crowned Kinglet—*Regulus calendula calendula.* A common migrant.

Blue-gray Gnatcatcher—*Polioptila caerulea caerulea.* A common summer habitant.

Wood Thrush—*Hylocichla mustelina.* A common summer habitant.

Veery—*Hylocichla fucescens fucescens.* A rare migrant.

Gray-cheeked Thrush—*Hylocichla aliciae aliciae.* A rather rare migrant.

Olive-backed Thrush—*Hylocichla ustulata swainsoni.* A rather common migrant.

Hermit Thrush—*Hylocichla guttata pallasi.* A common migrant, and rare winter habitant.

Robin—*Planesticus migratorius migratorius.* A common winter habitant.

Bluebird—*Sialia sialis sialis.* A common resident.

INTRODUCED SPECIES

English Sparrow—*Passer domesticus.* An abundant resident.

Mountain Sparrow—*Passer montanus.* A few are seen at irregular intervals, any time of the year. They probably come down the river from St. Louis on the steamboats as the English Sparrow frequently does.

[The foregoing list contains 273 named forms.—Ed.]

CORRECTIONS. In the foregoing paper, lines 1 and 2, page 78, should read, "and immediately above Hickman rather high hills rise almost directly", etc. Same page, line 8, for "along" read "on". The meaning the sentence is intended to convey is that Hickman is on the river and near the center of the county. Page 79, the notation referring to the Black Duck should read, "Winter visitant, not very common except during February (18th-26th) 1887, when they were abundant; for a few days (22nd-24th) apparently outnumbering all other ducks combined. L. O. P.

VERSAILLES, KENTUCKY, November 27, 1923.

THE WILSON BULLETIN

Published at Sioux City, Iowa, by the Wilson Ornithological Club, with the co-operation of the following societies, viz.:

The Nebraska Ornithologists' Union.
The Iowa Ornithologists' Union.
The Kentucky Ornithological Society.
The Tennessee Ornithological Society.

The subscription price in the United States is $1.50 a year, and 50 cents a number; in all other countries of the International Postal Union the price is $2.00 a year, and 60 cents a number. Subscriptions and orders for single copies should be addressed to the Secretary, Prof. Gordon Wilson, Bowling Green, Kentucky, U. S. A.

EDITORIAL

Kansas City has been officially selected as the place for the next meeting of the W. O. C. The meeting will be held during the Christmas holidays in conjunction with the great meeting of the American Association for the Advancement of Science. By referring to the record of our meetings as printed on the cover page it will be seen that we have met with the American Association on five other occasions. Since the W. O. C. has been holding annual meetings we have not failed to meet under the wing of the American Association on every occasion when this organization has held its convocation within the area of the middle west. This seems now to have become an established precedent for our guidance, as was foreseen in the first place. The noteworthy fact seems to be that the American Association comes so frequently within our reach. However, we must not intimate that the middle west is in any way specially favored—doubtless the meetings are distributed with perfect equity on some basis or other.

We may congratulate ourselves that this great scientific organization—the largest in the world in numbers, and perhaps, in power—recognizes the middle west as an integral part of the country and as part of its constituency. This is, perhaps, sufficient reason why we should avail ourselves of its hospitality at every opportunity. We may, in return, show some small measure of hospitality by meeting in conjunction.

It should be entirely unnecessary to say anything to our membership in behalf of the American Association, and yet it is doubtful if more than fifteen percent of our members are also members of the larger organization, though many more are eligible. The American Association, with a membership exceeding twelve thousand, is the representative scientific organization of America. It embraces all of the sciences, and is minutely and efficiently organized for the advancement of scientific learning.

Attendance upon one of these great gatherings of scientific men affords an inspiration for the enjoyment of which one might well suffer some sacrifice. The attendance at these meetings is always large enough to secure reduced railroad fares. Our W. O. C. members should become familiar with the rules governing this reduced fare, and plan to take advantage of it in attending the Kansas City meeting. All W. O. C. members will be entitled to a railroad rate of one fare

and a half on the certificate plan in attending the Kansas City meetings. At the time of purchasing your full one-way ticket to Kansas City you must have the agent make out the certificate of the Western Passenger Association. This certificate must then be properly validated at Kansas City, and if the total number of such certificates validated at Kansas City reaches two hundred and fifty, you will be entitled to purchase your return ticket at half the regular fare. Tickets on this plan may be purchased from December 24 to 30, and are good to return until January 6, 1926. The exact dates of the W. O. C. meeting will be made known to you by the Secretary. The meetings of the American Association begin on Monday, December 28, and continue throughout that week.

Consideration of our next annual meeting brings to mind several questions of policy, one of which is the matter of tenure of office. There are in general, perhaps, about two considerations in selecting officers—one is the desire to confer an honor upon a worthy member, the other is to get certain necessary work done. Honorary offices are usually of short tenure, and in most societies it is the presidency which partakes of this nature. But in such cases there is usually an executive secretary on salary or stipend, through whom the continuity of organization is maintained. In small societies with limited funds each office may be regarded as a *job*, not without honor; and a division of labor becomes imperative.

But the continuity of organization cannot be overlooked. Short tenure of office in such a case prevents the building of effective organization, and disrupts continuity. A successful organization must depend upon continuity of policy. One annual term of office is usually required for an officer to become familiar with his job, to build up his card index system, or merely to compose a letter to delinquent members. About the time he has become an efficient officer he begs off, and a new man is put in to go through the same educative process. Our conclusion is that a longer tenure for efficient officers is a better policy for small societies of limited income.

We have now been in more or less intimate touch with the affairs of the W. O. C. for over ten years, and have no recollection of any officer seeking to hold onto office. It is usually necessary to importune efficient officers on the plea of loyalty and service; and then, oftentimes, they feel that they have done their "bit" in the short term.

The Editor might find it in his heart to discuss this subject at greater length, but he trusts that these general and impersonal reflections may be understood by the Club in the spirit in which they are put down.

The Editor wishes that someone would claim an unsigned note entitled "Some Notes on the Cowbird", which is awaiting publication.

We beg pardon for the inadvertent omission of Prof. Swenk's name from the head of the General Notes department in the June issue.

GENERAL NOTES

Conducted by M. H. Swenk

The Lark Bunting at Sioux City, Iowa.—While driving along the highway about three miles south of Morningside, May 17, 1925, a male Lark Bunting (*Calamospiza melanocorys*) flew about twenty-five feet in front of the car. Plainly seeing his wholly black general color with large white wing patches we knew from experience with the species in western South Dakota that this was the Lark Bunting. It alighted on a fence not far away, and through field glasses we observed it there and also while feeding on new plowed ground in company with Prairie Horned Larks and other species, for about fifteen minutes. One hundred fifty miles west of Sioux City this bird is common, but it seems to be rare in northwestern Iowa.—T. M. Murdoch and Walter W. Bennett, *Sioux City, Iowa.*

The Arkansas Kingbird in Central Iowa.—Having been a close observer of the bird life of Boone County, Iowa, for a number of years, I am always interested whenever I find a new one, but I have been especially interested in one bird which seems to be extending its range farther east. This bird is the Arkansas Kingbird (*Tyrannus verticalis*). Boone County is almost in the center of the state of Iowa and we have the Des Moines River running through the center of the county. During the summer of 1924 one of my farmer friends came to me one day and said he had noticed a "different kind of Kingbird" out in the country, and asked me if the Arkansas Kingbird was found here. I told him that I had never seen one here and rather doubted the accuracy of his report. However, a few days after this, while driving in the country in a different township, I saw my first Arkansas Kingbird in this county, and then I knew my farmer friend was right. This was on June 1, 1924, and this being a rather late date for migration, the bird may have been nesting, although I saw but the one individual. It sat on the barbed wire fence along the side of the road, in genuine Kingbird fashion, and I stopped my car and followed it for some distance at close enough range for perfect identification without the use of glasses.

No other individuals were observed during 1924, but on the evening of May 18, 1925, while driving to the river I saw two more of these birds and drove quite close to them. They were on the wire fence as usual, by a pasture but very near the edge of the timber along the Des Moines River. The next morning, together with my son Junior and Robert Walker, I started at 5 a. m. for an all-day bird trip, and while we listed eighty-nine varieties during the day I felt that the most interesting thing of the entire day's experience was the thrill we felt when, shortly after starting, as we neared the timber along the same road we had seen the Arkansas Kingbirds the evening before, we found four of them, together with several Kingbirds. My first record of the year for the Kingbird had been made just five days previously (May 13). We watched them for a few minutes, all carefully noting their coloring and markings, and I especially wanted the younger boys to learn this bird as I had already become very well acquainted with it in North Dakota, where it is very plentiful. I have had fifty field trips this year, but have seen no Arkansas Kingbirds since and have concluded that these individuals passed through here. But it is singular that I should have seen my first one last year and then see six individuals this year on two succeeding days. If this ratio of increase continues each year they will soon be plentiful here. It certainly would be interesting to hear if anyone has observed this bird farther east than central Iowa.—W. M. Rosen, *Ogden, Iowa.*

The Arkansas Kingbird and Evening Grosbeak in Northern Michigan in Summer.—On June 1, 1925, on the Salmon Trout River, a small stream of northern Michigan which enters Lake Superior about thirty miles west of Marquette, I was surprised and pleased to come upon an Arkansas Kingbird (*Tyrannus verticalis*)—a lone individual, so far as I could discover—in association (accidental?) with a band of Cedar Waxwings scattered through a grove of aspens. I could but wonder whether the bird had "decoyed" to the waxwings, particularly as there is a certain resemblance in size, and notably in the black beak and black stripe from the beak rearward, surrounding the eye. The bird perched quietly, was not feeding, and allowed a close approach. When disturbed it flew but a short distance and perched again. I found it a second time, after an interval of an hour or two, but a week later it was gone. This bird's normal range is west of the Mississippi, and it must be accounted an accidental visitant in northern Michigan. On May 31st, and in the same region, I found a pair of Evening Grosbeaks (*Hesperiphona vespertina vespertina*), in open woods, near the shore of Lake Superior. It seemed to me that the date was very late for this winter visitant.—Bayard H. Christy, *Pittsburgh, Pa.*

Some Notes on the Summer Birds of Warren County, Kentucky.—Several times this spring (1925) I have made short or long trips in my paddle boat on Drake's and Jenning's Creeks and Barren River. One of the interesting things I have discovered is that the Louisiana Water-thrush (*Seirus motacilla*), about which I have formerly been doubtful, really spends the entire summer here. I have not found the nest this year, although I found some nests in distant parts of the state several years ago. Along the upper reaches of Drake's Creek I found this species positively numerous on June 6, when I rowed some twenty miles. I also found several Wood Ducks (*Aix sponsa*), which are usually not very common here in summer, although I have suspected for many years that they were summer residents. The greatest joy of my several midsummer trips in my little boat has been the sight of numerous Prothonotary Warblers (*Protonotaria citrea*), always a delight along our streams here. On one day in July I must have seen not fewer than fifty pairs, the males nearly always in full song.—Gordon Wilson, *Bowling Green, Ky.*

Some Notes on the Birds of Versailles, Woodford Co., Kentucky.—The following notes are submitted to show the observed changes in abundance among the birds of my neighborhood between the season of 1924 and the previous season, 1923, which latter season was reported upon in my notes published in the Wilson Bulletin for September, 1923.

The Yellow-billed Cuckoo was seen only occasionally, and is not believed to have nested in the immediate vicinity. The Downy Woodpecker and the Flicker were the same as last year. The Red-headed Woodpecker was reduced one-half, only one pair being noted. The Kingbird was the same as last year. The Crested Flycatcher decreased in numbers. The Blue Jay was the same as last year, and there were several authentic reports of it having killed the nestlings of other and smaller species. The Bronzed Grackle showed a decided increase in numbers. The English Sparrow more than doubled, probably trebled, in numbers.

The Cardinal and the Summer Tanager were not often seen, and no nests of either were located. The Cardinal especially was very shy and wary after the first of May. The Purple Martin was about sixty percent as numerous as last

year. The Red-eyed Vireo was not observed at all, and no Yellow Warblers were seen after the migration period, when they were rare.

A pair of Mockingbirds started a nest the first of June, very late, in a quince tree in a yard on the opposite side of the avenue and when it was more than half finished they deserted it. No reason can be assigned for this as the tree was close to a house and the birds were given every possible encouragment and protection. No later nesting of this species was seen, although they remained in the neighborhood. The Catbirds held their own, and the Brown Thrasher remained the same as in the preceding year.

One additional species was noted, the Bewick's Wren. A pair built a nest in an old tin bucket that had been hung on the fence between my neighbor's garden and my own, and just as it was completed, but, I think, before any eggs were laid, the bucket was knocked down. How, I do not know. The wrens remained and were seen and heard every day through the summer and fall, as late as I continued to visit the garden, but I never saw any sign of another nest and do not believe they built one. The Chickadee decreased in numbers. The Wood Thrush remained the same as in the preceding year. The Robin increased in numbers very noticeably.

In my note on the Scissor-tailed Flycatcher in the March, 1925, number of the Wilson Bulletin, p. 41, the ninth line should read "while the flight strokes were even and regular, they were slow", etc., and in the closing line read "and" for "but".—L. Otley Pindar, *Versailles, Ky.*

The Starling Breeding in Tennessee, North Carolina and Virginia.—The spread of the Starling (*Sturnus vulgaris*), particularly as a resident species, is being watched with considerable interest. In the Wilson Bulletin for March, 1924, pp. 31-32, I recorded it as having become abundant as a winter visitor at Nashville, Tennessee, and may add now that it has continued since then as an abundant though somewhat erratic winter visitor, remaining into March.

I am now able to record it as a breeding bird in Tennessee, having found several nests in the city of Bristol, which is located in the extreme northeastern part of the state. On May 24, 1925, while in the outskirts of that city, I noticed ten or a dozen of these birds feeding in a cow pasture. Suspecting that they were nesting, and would at this date be feeding young, I set about to see if they were carrying food. I soon had the satisfaction of seeing them make trips directly towards the business section of the city, a half mile away. By taking up stations along the route I finally found that at least four pairs had built nests in the metal cornice of the tower of the First Presbyterian Church. A week later while at Knoxville, Tennessee, Mr. Paul Adams told me that he and Mr. S. A. Ogden had found ten or more nests in and about Knoxville this year. This is the first year that they have been recorded at Knoxville as breeders.

On May 25 I saw six Starlings at Shenandoah, Virginia, and a few hours later, in the outskirts of Luray, eight more. I also saw six at Roanoke. Col. H. J. Benchoff, of Luray, tells me that they began nesting there in 1924, when two pairs built in cavities of trees in town.

In discussing these birds with Prof. W. O. Coker, of Chapel Hill, North Carolina, who was attending a convention near Luray (Skyland) at the time, he told me that he had recorded two nests this year at Chapel Hill, the first he knew of for his state. These nests were built in the cornices of buildings on the college campus.

It is probable that if a careful survey were possible it would be found that this speciees has been extending its breeding range, in a southwesterly direction, much more rapidly than had been anticipated.—A. F. GANIER, *Nashville, Tenn.*

Some Records of Nebraska Birds for the Spring of 1925.—The spring of 1925 was for the most part a very early one with reference to bird migration in Nebraska, and several unusually early records of bird arrivals were made, as well as records of some rare species. Bonaparte's Gull was first noted on May 10 at Capitol Beach lake near Lincoln, and was seen several times later in small flocks, occasionally with the Franklin's Gull. On May 25 a field party under my leadership observed for some time a group of four Caspian Terns. This is a rare bird in Nebraska. A flock of thirty or more of both sexes of the American Goldeneye was noted on a pond near Arbor, north of Lincoln, on March 21. Although it is not rare, the Buffle-head is seldom seen in large numbers in Nebraska, but this year it was so common that it seems advisable to mention it here. The first record for the year was on March 5, and it was observed by many persons from that time on up to the end of April, and on all occasions quite a number were seen together. Representatives of the Blue Goose and the White-fronted Goose were first observed at Lincoln on February 28, and of the Canada and Hutchins' Geese on March 2, which dates are between one and two weeks earlier than is usual for the arrival of these birds in southeastern Nebraska. The Sora Rail was noted at Lincoln on April 18, which is a good week earlier than its usual date of appearance. March 13 was the date of the first record of the Pectoral Sandpiper at Lincoln this spring. It is usually not observed until two weeks later. Although the White-rumped Sandpiper does not usually arrive at Lincoln until the first week in May, it was observed on April 24 this year. Both the Solitary and Spotted Sandpipers were recorded at Lincoln on April 18. These two species were a good week early.

The Duck Hawk was observed near Capitol Beach lake on April 12. Mr. William Hiller, of Lincoln, and myself observed the Pigeon Hawk south of Lincoln on May 10. The Yellow-bellied Sapsucker was personally observed in Wyuka Cemetery at Lincoln on January 3. This appears to be our only winter record of this bird at Lincoln. The Red-headed Woodpecker was observed in numbers at Plattsmouth at Christmas time in 1924, and several were seen again there again on April 4, 1925, so it was no doubt there during the entire winter. Three individuals of the Traill's Flycatcher were observed at Fremont, Nebraska, on April 25 by Dr. Robert H. Wolcott, Mr. Leighton Williams and myself. This species is not usually noticed until a week later. Although the Baltimore Oriole does not usually arrive until the first week in May, it was observed in a yard in Lincoln on April 25 this year. The writer and Mr. Williams noted the Smith's Longspur on March 29 at Lincoln. The Western Henslow's Sparrow was also personally observed at Lincoln on May 9. The Clay-colored Sparrow is usually not common before the last week in April, but this year it was found very commonly on April 18. An unusual migration of the Shufeldt's Junco was observed during the last half of March at Lincoln this year. It was first seen by Professor Myron H. Swenk on March 15, and was afterward seen by other observers on many other occasions. Mr. Williams and I noticed a Rose-breasted Grosbeak a few days early, on April 24. Mr. and Mrs. E. G. King, of Lincoln, noted a Black-headed Grosbeak in Wyuka Cemetery at Lincoln on May 9. This is the first report of this bird at Lincoln for several years. On May 19 a party of observers under the

leadership of Dr. Wolcott and myself observed a single individual of the Lazuli Bunting at Lincoln. The Dickcissel is usually abundant by the end of the first week in May, but was noted commonly on April 25 this year.

Cedar Waxwings were seen by me on June 7 at Omaha, and on July 4 at Plattsmouth. This bird is not often noticed in summer in southeastern Nebraska. Dr. Wolcott, Mr. Williams and myself saw a number of Yellow-throated Vireos on April 25 at Fremont. These individuals were several days early. Also a single Bell's Vireo was seen at Fremont on the same day. One individual of the Black and White Warbler was noted a week ahead of the usual time, at Lincoln on April 18. The only observation that I know of for the Northern Parula Warbler in the state this year is one which I personally made near Lincoln on May 17. Mr. Williams saw a Carolina Wren in the woods along a creek south of Lincoln on January 1. The Western House Wren, not usually seen at Lincoln before April 15, was first seen at Lincoln this year on April 13. A March record of the Long-billed Marsh Wren was made this year by Mr. Williams and myself, who observed it near Lincoln on March 28. A single individual of the Veery was seen and heard in full song south of Lincoln on May 17. It is an uncommon bird here.—Leonard G. Worley, *Lincoln, Nebr.*

Some Bird Notes from Ontario for the Year 1924.—At Turkey Point, on Lake Erie, and in the surrounding country, between May 23 and 31, 1924, I identified 127 species of birds, among which the most interesting for that region were the Wood Duck, Least Bittern, Knot, Willet, Hudsonian Curlew, Black-bellied Plover, Piping Plover, Ruddy Turnstone, Orchard Oriole, Grasshopper Sparrow, Cardinal, Rough-winged Swallow, Golden-winged Warbler and Prairie Warbler. Of these observations, the record of the Willet is the best, for Mr. Saunders tells me that so far as he knows the Willet has not been recorded from Ontario in the past ten years. I am not sure whether it was the eastern or western subspecies. The Rough-winged Swallow is local and uncommon in southern Ontario. In one day, on Saturday, May 24, I identified eighty-two species while at Turkey Point, which indicates how rich in bird life that district is during the migration period. I also found eighteen or twenty nests during my stay at the point, among them one of the Piping Plover and one of the Marsh Hawk, the latter containing six dull whitish eggs.

On May 18, 1924, I noted a Lincoln's Sparrow at Manneheim swamp near Kitchener, which is a noteworthy observation for this region. I also noted the Henslow's Sparrow twice the past spring at Dundas Marsh near Hamilton and Dundas, the first individual at the eastern end of the marsh on May 7, and the second one at the opposite end of the marsh, three or four miles to the westward, on May 19.

I have seen individuals of the Starling here several times, and on September 28, at Dundas Marsh, a flock of nine flew past me, overhead. Early in July I saw both adult and juvenile Starlings at Port Credit, near Toronto, and found one nest of this bird in a deserted Flicker's hole in a large elm tree about thirty-five feet up. Later in the month, about July 29, a mile or so from Paris, I met with two fully grown Black-crowned Night Herons in immature plumage. This species is supposed to be very uncommon in southwestern Ontario.

The most noteworthy observations made during the fall migration were the Sora at Dundas Marsh on September 28; the Florida Gallinule at Ashbridge's Bay, near Toronto, on September 1 and again on September 28; the Dowitcher

between Ashbridge's Bay and the Exhibition Grounds near Toronto on August 30; the Pectoral and Baird's Sandpipers on September 1; the White-rumped Sandpiper on September 30; the Osprey flying over the Exhibition Grounds near Toronto on August 30; the Rusty Blackbird between Galt and Dundas on September 27 and near Kitchener several times subsequently, and the Snow Bunting at the outskirts of Kitchener on November 3.—G. W. KNECHTEL, *Kitchener, Ont.*

BIRD BANDING NEWS

Conducted by Wm. I. Lyon

Some Experiences in Bird Banding

By Mrs. Marie Dales

I have often been asked how I came to take up bird banding. When we moved to our present home, I found so many birds already there, that I determined to try to keep them and attract others. The Western Meadowlark sang all fall while we were building. In the spring I found a pair of Cedar Waxwings nesting in a cottonwood tree just below our house.

I soon discovered that I would have to employ some means of ridding the place of English Sparrows; they came in hordes and ate the food provided for the other birds. So, in the first part of July, 1923, I invested in a sparrow trap. In exactly two months I had trapped one thousand English Sparrows. The catch for the entire season was 1,125. Last year we caught only 878. And even with this reduction of these birds we have been compelled to keep up a constant warfare on them all spring. I have torn their nests out of our nest boxes, only to find them building again the next morning. We simply cannot have sparrows and song birds together.

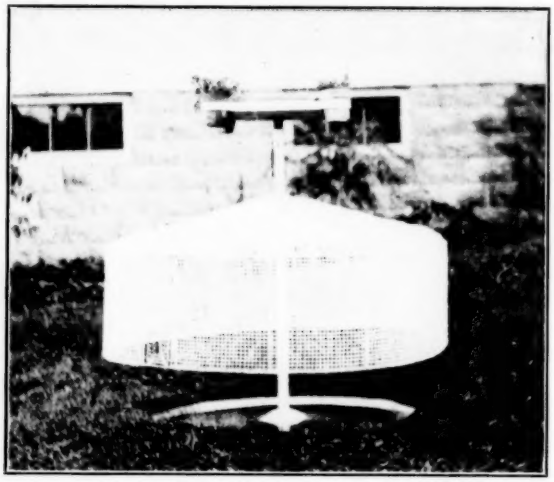
Besides sparrows, other birds frequently came into our trap. The thought came to me that these birds could be banded before they were released. And as I thought more about the wonderful possibilities in thus identifying these migrant visitors, I decided to undertake it. By the time I had received my federal permit it was rather late in the season, and still later when I received my supply of bands. But the following spring found me prepared. With the Brown Thrashers predominating the year before, I felt quite certain that the first bird to wear one of my bands would be a thrasher; and it was.

One of the interesting phases of this work is the opportunity to study the differences in the ways birds react to the trapping and handling process. Of course, we are not surprised to find birds of different species behaving differently; but there are also differences in behavior in birds of the same species. This is probably an indication of temperament in birds. Some birds are more nervous than others. The first Robin to be trapped was a male, and he yelled so lustily for help that several other Robins came to his assistance; one of these was a female which entered the trap, and this led me to think that she must be his mate. Later observations proved that this was not the case, however. Some birds are very docile, while others will struggle and bite. The Cowbird nearly always bites. Only once did a Bluebird show fight. Most Catbirds are timid and nervous, and seldom bite. Harris's Sparrow rarely shows any nervousness, and I have never had one bite me. I have had Brown Thrashers, Catbirds, Harris's

Sparrows, and Robins remain in my open hand for some little time. One Robin remained in that position until I counted fifty, then he hopped to the ground and leisurely walked away.

To trap the Bluebirds and wrens I had to devise some other method, as they would not go into the sparrow trap. I made a landing net by lacing some mosquito netting over an embroidery hoop. Watching my opportunity I would slip up and place the net over the hole of the nest box. The male will leave the box at the slightest disturbance, while the female will remain with the young.

In the case of the first pair of House Wrens which I banded, the male left home never to return—not even to help feed the young. He began to build in



THE DROP BATH TRAP DESIGNED AND USED BY MRS. DALES.

a box in a nearby tree, while the female remained with the young until they left the nest. Then she went to the new home her mate was building. She stayed there only a few days, and then I did not see her again; just what happened I do not know. The male built and sang, but remained mateless for the rest of the season.

The second pair of wrens nested in a box on a window casing. I had no trouble in getting the male in the net, but the female was too wily for the mosquito netting. I finally resorted to a hair net and got her, but she lost her tail in the operation. It may have been the mortification of losing her tail that prompted her to remain away all afternoon. At dusk she came shame-facedly creeping back, to be soundly berated by an irate mate left alone to feed the family all that time.

The trapping and banding of birds presents an opportunity for the study of abnormal conditions. Among the Catbirds there was one who was unable to close his beak for a long time. His voice was squeaky, and remained so all summer. Another Catbird had lost the right foot. Later I trapped him and examined him carefully. The first joints of both inner and outer toes of the left foot were also missing. I believe this condition had been brought about by disease rather than by banding. I banded him on the left leg.

Late in the fall I trapped a Robin with the lower mandible broken and bent back to the chin. Two weeks later I saw him in Grandview Park busily pecking away with his upper mandible. His plumage was ill-kept. Three days later I saw him again in my back yard. He then seemed quite fit and able to survive.

The banding of nestlings is very unsatisfactory and unproductive of results. The mortality is too great. Sooner or later the trapper is sure to have some fatalities. I have had two. A Brown Thrasher and a Chipping Sparrow were caught under the drop trap before they were fully inside.

As the work progresses one is constantly on the alert for new trapping methods and new baits, which will entice new kinds of birds to the traps. For bait I use bread, fruit, grapenuts, cottage cheese, and table scraps of many kinds. Later in the season I have found that dogwood berries (*Cornus asperifolia*) are a splendid bait for Bluebirds, Robins, and Flickers. The Flickers came all winter for the berries.

Birds are a little like people—they learn to like some things. At first the Bluebirds paid no attention to the food tray. Before the season was over I frequently saw them partaking of bread and cheese. One day the male Bluebird, apparently tired of feeding the youngsters, brought them to the food tray and left them to help themselves.

The total number of birds trapped and banded from May 2 to November 7 was 170. They were caught in various traps, as follows:

Bath trap	64
Drop trap	44
Sparrow trap	33
On nest	15
Gathering cage	9
Landing net	5

The sparrow trap was operated through the entire season; the drop trap from June 24 to October 1; and the bath trap from October 1 to November 7.

It may be a matter of interest to some readers to know the species banded, and the number of each, which is here given: Robin, 33; Harris's Sparrow, 28; Catbird, 27; Brown Thrasher, 24; Chipping Sparrow, 16; Bluebird, 14; House Wren, 9; Cowbird, 5; Slate-colored Junco, 4; Mourning Dove, 2; Myrtle Warbler, 2; Flicker, Goldfinch, Orchard Oriole, Pine Siskin, White-crowned Sparrow, and Bronzed Grackle, one each.

A Bluebird and Harris's Sparrow each repeated once; two Harris's Sparrows each repeated twice; one Harris's Sparrow and a Brown Thrasher each repeated three times.

I use a card index system in keeping my records. I enter the number corresponding to the number of the band, the name of the bird, sex if possible, and any unusual features about the bird. This card is practically a duplicate of the one which is sent to the Bureau of Biological Survey at Washington.

Sioux City, Iowa.

UNOFFICIAL BIRD BANDING

BY T. C. S.

A good deal of unofficial bird tagging is going on from time to time, which is heard of only through the newspapers. The latest to reach our attention is the

case of a Crow which was tagged about four miles north of Pilger, Nebraska, on January 4, 1925, by George and Ted Foote. The boys wired two pool chips to the body of the bird, but to what part of the bird's body is not clear from the newspaper account. The Crow was recovered nine miles out of Saskatoon, Saskatchewan, on July 31, 1925, by Ed. Graham, who returned one of the chips, thus completing the chain of facts. The distance between the two points is approximately 1,000 miles in direct line, but perhaps more as the Crow flies.

This case recalls a couple of instances where hawks were marked in one way or another, with returns. In the case of hawks the identifications by newspapers or untrained persons must be taken for what they are worth. The first instance is as follows: Mr. Ed. Hotchkiss on August 19, 1916, marked a "hawk" at Red Lodge, Montana. On October 29, 1916, the bird was captured on Bogota Plain, about nine miles north of Bogota, Columbia, South America. Thus the bird traveled approximately 3,700 miles in seventy-one days. The following letter addressed to me by Mr. Hotchkiss in answer to an inquiry may be of interest:

"Red Lodge, Montana, Aug. 29, 1917.

Dear sir:

Your letter of August 24 is now at hand concerning the bird or rather the chicken hawk which I caught last year. I shall gladly answer your question. Yes, the bird was marked August 19, 1916. It was marked on a small piece of paper which was put in a bottle and fastened with a copper wire around the bird's neck. The note contained the following message:

Whoever finds this bird please write and tell me when and where and upon what date: please send me your address.

Yours truly,

Mr. Eddie Hotchkiss,

Red Lodge, Montana. Box 426.

No the bird was not killed October 29, 1916, but was injured and captured on Bogota Plain, Colombia, on this date. The bird was an adult. It was a regular chicken hawk.

Yours truly,

Mr. Ed. Hotchkiss, Red Lodge, Mont."

The species of hawk may not be ornithologically identified, but the evidence is good that "a chicken hawk" made that long flight in a definite time. According to newspaper accounts the bird was captured by Luis elipe Rulda, of Bogota.

Another hawk was tagged in 1916, at White Lake, South Dakota, by Mr. P. G. Tripp. It was recovered late in November of the same year at Denton, Texas. The following letter to me gives details:

"White Lake, S. Dak., December 8, 1916.

Dear Sir:

Replying to your inquiry regarding the young hawk. About the middle of June I found the nest containing the four young hawks. Curious to know the result I caught three of them—the fourth made his escape, as he could fly some—and these I labeled with aluminum chicken markers with my name and address. The nest was built in a marsh where the water was about fourteen inches deep. These birds were Marsh Hawks and not Sparrow Hawks as the papers have it. They must have flown away from here the latter part of July for I did not see

them later than that. The one which created all of the excitement was shot near Denton, Texas, by Ruel J. Brek. Hoping that I have made it all clear to you, I remain,

Sincerely yours, P. G. Tripp."

While on this subject it may be worth while to reprint from the magazine *American Ornithology* (Worcester, Mass.), Vol. I, page 194, 1901, the following account of an early effort at bird banding, which may be of interest to present-day banders:

"Wedded for Life. Just beneath the diamond shaped opening in the hay loft of my father's carriage house was placed the rustic summer home of a pair of swifts. I remember my father telling me that this nest had been there to his knowledge for fourteen years; and well I recall when a boy of ten climbing to the nest to look at the five white eggs. I used often to catch the birds as they clung to the side of the loft, and to show my playmates the spikes in their tails. This was during the season of '80. The following Spring, acting on the advice of my father, I made two bracelets of coiled hair wire, and catching the birds, fastened one about the leg of each. For the following five years the same pair of swifts occupied the nest.

"About this time business took me to New York, and I have only occasionally visited the old haunts. The summer of '90 I climbed into the old loft, and to all appearances the same old nest, and upon catching the old birds, found that one still had the copper wire upon its leg. Whether the other bird was a new mate or had lost the wire, I cannot state. Two interesting facts were however demonstrated; first, that the swift at least remains mated for life, and second, that they are a long-lived bird. I cannot of course state whether this pair were the same ones first observed by my father fourteen years before my observations commenced, but 'my birds' nested 'on the old camp ground' from '80 to '90, a period of ten years, and the nest to my knowledge has been there over thirty years.—Howard L. Wood, M. D., Groton, Ct."

Miscellaneous Notes

Bird banding is proving that the Harris's Sparrow is gradually extending its range eastward. Though not many of these are trapped and banded, they have consistently appeared east of the Mississippi River each spring and fall in recent seasons; and from these facts we may conclude that the species is becoming a regular migrant as far east as the Great Lakes, even though the numbers may be small at present. We have trapped not less than one of these birds during each spring and fall for the last three years; and one more was trapped in the spring of this year.

On May 18, 1925, Harold C. Wolson trapped and banded a Harris's Sparrow at Madison, Wisconsin. Mrs. P. B. Coffin, of Chicago, observed two Harris's Sparrows at their farm, sixty miles east of Indianapolis and about fifteen miles from the Ohio line. They first appeared on May 12 in the garden near the house, and were seen again on May 14, 15, and 16. Wing Brothers have reported that they banded a Harris's Sparrow at Jackson, Michigan, in May, 1925.

Edward S. Thomas, Columbus, Ohio, recently made a trip to the Indiana Dunes, near Whiting, and was successful in banding three Black Terns, one Killdeer, and one Wilson's Phalarope, all immature birds.

Rev. George W. Luther, Old Fort Drummond, Detour, Mich., which is on the north side of Lake Huron, has observed a Baltimore Oriole and a Rose-breasted Grosbeak at that place; both are rather unusual records for that region, and perhaps the record of the oriole is one of the farthest north that has been made. Rev. Luther also reports that a Herring Gull banded by him on July 4, 1924, was killed by an Indian near the mouth of the Great Whale River on Hudson Bay. It is quite singular that a young gull, which had not been flying all told for more than four months, should thus migrate north and east for a distance of six hundred and fifty miles from the place where it was hatched.

Prof. J. W. Stack, Michigan State College, East Lansing, says that some of the professors are joining with him in bird banding work, all being located within a few miles of each other. They expect to be able to secure some facts concerning the distance birds travel from their nests in securing food.

Prof. William Rowan, University of Alberta, Edmonton, reports that he banded twenty-five Franklin's Gulls on July 9, at Beaver Hill Lake, Alberta. He had only twenty-five bands, of the proper size, with him, or he would have banded many more. He estimates that there were 25,000 adults in the colonies, and that the marsh was "crawling" with the young. He banded only the largest, and did not cover over fifty yards. Next year he expects to be prepared to work on a larger scale.

A Northern Flicker banded by Wm. I. Lyon at Waukegan, Ill., on June 21, 1918, was killed at Monroe, La., on July 27, 1925. Thus the bird had lived over seven years at the time of its death.

A most valuable piece of bird banding work has just been reported by Robert B. Glover, of Ft. Atkinson, Wis. While at Milton College, in Wisconsin, he trapped and banded 549 Chimney Swifts, 272 in one chimney and 277 in another. He made a trap of small mesh poultry netting, with a single funnel at the bottom; this was placed over the chimney top.

J. A. Laughlin, Marshall, Mo., writes to us of two Chimney Swift returns. We hope that we may be able to publish in the near future a Chimney Swift return from South America.

E. C. Hoffman, Cleveland, Ohio, claims that a pair of Kingbirds protected the immediate vicinity of his banding station from the Sparrow Hawks, which nested not far away.

NOTES HERE AND THERE

Conducted by the Secretary

Mrs. Merit O'Neal, historian of the Kentucky Ornithological Society, writes as follows to the Secretary, under date of May 19, 1925: "On a recent visit to my mother's home in Lexington I went on an early-morning bird hike with the Lexington Bird Club. On the farm of Mr. Jake Gray, at Pine Grove, we saw a flock of ten or more Starlings. A young one was caught and brought to Major Victor Dodge, of the University of Kentucky, who positively identified it."

The *University of Iowa Service Bulletin* for June 13, 1925, is taken up with an article by Professor Dayton Stoner on the "Summer Birds of Iowa". Professor

Stoner is an effective and voluminous writer on birds. His work at the University of Iowa is making for him an enviable reputation among bird-lovers.

Dr. George M. Sutton, now state ornithologist of Pennsylvania, has lately attracted wide attention by his illustrated lecture on bird life. Dr. Sutton is vitally interested in the state-wide movement for game conservation, and is often commended for his services in the *Wild Life Magazine*, an attractive little magazine published by the Wild Life League. In the issue for April, 1925, we find an article by Dr. Sutton on "A Natural Zoological Garden in Western Pennsylvania: Pymatuning Swamp".

The *Gull*, the organ of the Audubon Association of the Pacific, has a delightful short article in the May, 1925, issue on "Birding on the Acropolis", by Amelia Sanborn Allen, who is now in Greece.

The Lewis Fritz farm of seventy acres, in Kenton County, Kentucky, near the city of Covington, was dedicated on May 30, 1925, as a bird preserve, and was given over to the custodianship of the state Game Warden, Charles W. Scales. Mr. Scales has had rather an interesting experience in restocking parts of the state with Gambel's, or "Mexican", Quail.

The Dayton, Ohio, *Daily News* of July 7, 1925, contained pictures of Dr. Lynds Jones, our former editor, and his ecology class. The item which accompanied the pictures was: "The world's only college on wheels has started its long trip west. Professor Lynds Jones, of Oberlin College, is making his ninth pilgrimage to the Pacific coast with his ecology class, which consists of four young men and two coeds. They are going in flivvers. The object of the trip is to study birds, animals, and rock formations all the way across the west." We are under the impression that the party was larger than this, and, of course, this is a very inadequate statement of the objects of the trip.

Bessie W. Kibbe contributes an interesting article to the July *Gull* entitled, "Birding on Howell Mountain".

The name of Miss Althea R. Sherman, National, Iowa, must be added to our Better Bulletin Club. The lists of the Club are still open, and everyone is eligible.

Mr. Orpheus M. Schantz, of Chicago and Berwyn, Illinois, conducted a party of sixty tourists into the Great Smoky Mountains of eastern Tennessee during July, 1925. The party traveled in three Pullman coaches and enjoyed the reputation of being the largest party which has yet visited this famous proposed national park site. Mr. Schantz says that many of the party were interested in birds, and a list of fifty species was made on the trip. The expedition was composed mainly of members of the Chicago Geographical Society.

Dr. Leroy Titus Weeks, of Emmettsburg, Iowa, who for several years has conducted the work in bird study at the Wild Life Conference, McGregor, has been chosen to take charge of the department of English Literature at Tabor College, which institution has recently passed into the control of the Episcopalian Church.

Prof. Howard K. Gloyd, of Ottawa University, Kansas, has spent the summer of 1925 at the Michigan Biological Station, and we may suppose that the birds did not escape his attention.

This year is the eighteenth anniversary of the founding of the Smithsonian Institution.

We have received word from Dr. L. Otley Pindar, of Versailles, Ky., that the Mexican bean beetle has arrived at that place, and that he has observed the Brown Thrasher feeding upon this insect pest.

Clarence S. Jung, of Chicago, reports that he banded three young Wilson's Phalaropes at Wolf Lake, a few miles south of Chicago.

M. J. Magee, Sault Ste. Marie, Michigan, seems to have established a record by banding 1,227 Purple Finches between January 1 and July 31, of this year. He has also banded 134 Evening Grosbeaks, which with other species, carries his total over fifteen hundred up to August 1. This activity is much appreciated by all who are interested in the bird banding work.

ADDITIONAL WHO'S WHO

Following the beginning in the June issue we present herewith a few more introductions of our members. We trust that we have made no serious errors in the official titles, but will be glad to correct any that have been made. The Secretary will be glad to hear from each member, and he suggests that a letterhead, which gives a statement of title or occupation, be used. Or, still better, tell the Secretary exactly what your work and interests are.

J. M. Robinson is acting head of the Science Department of Alabama Polytechnic Institute, Auburn, Alabama.

William J. Baerg is professor of entomology and director of the Experiment Station in the University of Arkansas, Fayetteville, Arkansas.

Dr. A. A. Allen is professor of ornithology in Cornell University, Ithaca, New York.

Dr. Alexander W. Bain is a physician in Detroit, Michigan.

Wolfrid Rudyard Boulton, Jr. is connected with the American Museum of Natural History, New York, N. Y.

F. Martin Brown is commissioner of the Palisades Interstate Park, Iona Island, New York.

Thomas D. Burleigh is professor of forestry, University of Georgia, Athens, Georgia.

Alvin R. Cahn is associate professor of zoology, University of Illinois, Urbana.

R. D. Camp is a field collector, Brownsville, Texas.

Carl Olof Carlson is professor of biology, Doane College, Crete, Nebraska.

Miss Dora E. Carter is the librarian at Upper Iowa University, Fayette, Iowa.

W. Lee Chambers is business manager of the *Condor*, Eagle Rock, California.

Frank W. Commons is secretary of the Chamber of Commerce, Minneapolis, Minnesota.

F. C. Collins is director of the Museum, University of Nebraska, Lincoln.

Dr. Stanley G. Coulter is dean of the School of Science, and dean of men, Purdue University, Lafayette, Indiana.

Lewis F. Crawford is curator and librarian, State Historical Society, Bismarck, North Dakota.

Thos. H. Whitney is vice-president of the Whitney Loan and Trust Bank at Atlantic, Iowa.

W. M. Rosen is a banker at Ogden, Iowa.

H. G. Huntington is a banker at Onawa, Iowa.

Samuel F. Foft is a banker at Waukee, Iowa.

V. C. Bonesteel is a banker at Sioux City, Iowa.

A. B. Darling is a banker at Sioux City, Iowa.

Walter J. Himmel is professor of botany at Macalester College, St. Paul, Minnesota.

A. P. Larrabee is professor of biology at Yankton College, Yankton, South Dakota.

Mr. Edward von Seibold Dingle, Mount Pleasant, South Carolina, is an artist and etcher, who is devoting much of his time to birds in art. Coming issues of the BULLETIN will contain several reproductions of Mr. Dingle's beautiful work.

William G. Fargo is an hydraulic engineer, and president of the Fargo Engineering Company, Jackson, Michigan. Among his numerous achievements was the landscaping of the parks of Jackson, more than a thousand acres. For years he has been a collector of note.

Dr. W. H. Osgood is in charge of the Department of Zoology in the Field Museum of Natural History, Chicago. Mammals are his chief interest, but he has been identified with bird work for many years. The July-August *Condor* publishes a portrait of Dr. Osgood and calls attention to the fact that he was the first president of the Cooper Ornithological Club.

Dr. George M. Sutton, recently connected with the Carnegie Museum of Pittsburgh, is now State Ornithologist of Pennsylvania, with headquarters at Harrisburg.

Edward D. Crabb is a member of the staff in the Department of Zoology, University of Michigan, Ann Arbor.

Dr. E. W. Johns is house physician at the College Hospital, Ames, Iowa.

Thos. L. Hankinson, past secretary and past president of the W. O. C., is now professor of zoology in the State Teachers' College, Ypsilanti, Michigan.

Johnson A. Neff, of Missouri, is now a student in the State Agricultural College, Corvallis, Oregon.

Carl Fritz Henning is the custodian of the Ledges State Park, near Boone, Iowa. Mr. Henning is one of the few remaining members of the old Iowa Ornithological Association, whose existence was interrupted by the Spanish-American war. Readers who tour through Iowa should stop at the Ledges Park, enjoy the unusual scenery, and have a visit with Mr. Henning.

Rev. George Bennett, Iowa City, Iowa, for several years published a quarterly magazine called *Iowa Conservation*. More recently he founded and developed the

Wild Life School of Conservation, which has for the last seven years held an annual session of two weeks at McGregor, Iowa.

Clyde B. Terrill, Oshkosh, Wisconsin, has developed a large business which deals in aquatic foods for wild ducks. Many lakes throughout the country have been made attractive feeding grounds for the ducks by large scale plantings of various water plants obtained from him.

Dr. R. M. Strong, who has held almost every office in the W. O. C., is professor of anatomy in the Loyola Medical School, Chicago.

Dr. Ralph E. DeLury is a member of the staff of the Dominion Astronomical Observatory, Ottawa, Canada.

Ira N. Gabrielson is engaged in federal rodent control work in the northwest, with office at Portland, Oregon.

J. E. Guthrie is professor of zoology at the Iowa State College, Ames, Iowa.

Warner Taylor is professor of English in the University of Wisconsin, Madison.

Mrs. Beryl Taylor Mounts is a teacher in the Ballard Normal School, Macon, Georgia.

Percival Brooks Coffin, for several years treasurer of the W. O. C., is a broker in stocks and bonds, Chicago.

Weir R. Mills operates a general store at Pierson, Iowa, and studies flowers, birds, and butterflies on the side.

J. W. Stack is professor of zoology in the Michigan Agricultural College, at East Lansing.

Oscar P. Allert is a farmer, near McGregor, Iowa.

William E. Praeger is professor of zoology at Kalamazoo College, Michigan.

Dr. Franklin P. Metcalf is professor of zoology in Fukien Christian University, Foochow, China.

A. F. Allen is editor of the *Sioux City Journal*, Sioux City, Iowa.

PROCEEDINGS

Proceedings of the Twenty-Sixth Annual Meeting of the Nebraska Ornithologists' Union

The twenty-sixth annual meeting of the Nebraska Ornithologists' Union was held at Superior, Nebraska, Friday and Saturday, May 8 and 9, 1925. The members of the Union and their friends, to a total of about fifty, assembled in the First Presbyterian Church at 6:00 P. M., where they were served a very enjoyable dinner prepared by the ladies of the church. At 7:30 P. M. the members adjourned to the chapel of the church for the annual business meeting.

Twelve members were present at this session of the N. O. U., as follows: Mesdames Lily R. Button, Geo. L. Day, Chas. Groves, H. F. Hole, H. C. Johnston, A. H. Jones, C. W. McCaskill, Mary St. Martin and Addison E. Sheldon and

Messrs. C. K. Hart, M. H. Swenk and R. H. Wolcott. Rains and impassable roads greatly cut down the prospective attendance, and forced twelve additional members who had expected to be present and had made reservations for the dinner, to be absent.

Dr. R. H. Wolcott, President of the Society, called the meeting to order immediately upon the assembling of the members. On motion the reading of the minutes of the previous meeting was dispensed with and they were approved as printed in the June, 1924, number of the WILSON BULLETIN. The first matter to be considered was the field trip for the following day. After discussion, it was decided that those who desired to participate in the field trip should assemble in front of the City Library building at 5:30 A. M., and while one party would go to the ponds west of town another party would study the woodland birds along the Republican River just south of Superior.

President Wolcott and Vice-President McCaskill then reported briefly for their respective offices, and the financial report of the Secretary-Treasurer was read. This report showed cash on hand on May 1, 1924, to the amount of $91.57, to which had been added during the year $125.00 from dues, $21.25 from interest on investments, and $2.75 from sale of publications. There was remitted to the Wilson Ornithological Club a total of $76.00 for dues, and the expenses of the office of Secretary-Treasurer for postage and stationery amounted to $16.63, leaving a balance on hand on May 1, 1925, of $147.94.

President Wolcott referred the financial report to a committee composed of Mr. C. K. Hart and Mrs. Lily R. Button for auditing. A Nominating Committee composed of Mrs. Addison E. Sheldon and Mrs. H. F. Hole was also appointed, to report later in the session.

The Secretary-Treasurer then reported on the ballot on honorary members, and stated that the necessary three-fourths of the ballots sent out had not been returned, and therefeore no election could be announced. After discussion, the Secretary-Treasurer was informally directed to submit a new ballot, urging a return, to the members at an early date.

The hour of 8 o'clock, announced as the beginning of the public program, having arrived, the business session was interrupted, and the following program was given to an audience of more than one hundred listeners:

President's Address—"Ornithology of Nebraska—Past and Present" (illustrated with lantern slides).....Dr. R. H. Wolcott, Lincoln

"Winter Birds at a Window Lunch Counter in Lincoln" (illustrated with lantern slides).....Mrs. Addison E. Sheldon, Lincoln

"Some Bird Banding Experiences Near Fairbury (Read by Mrs. H. F. Hole).....Misses Agness and Susie Callaway, Fairbury

The regular program having been completed at 9:50 P. M., Mrs. Lily R. Button was requested to give some whistled imitations of bird songs, which she did to the delight of those present. The entire program was very much enjoyed by the membrs, and appareently by the general audience as well.

The program having been compleeted and the general audience having dispersed, the members resumed their business meting at 10:00 P. M. Proposals of names and election of new members being in order, the following twenty names were proposed, and on motion by Mrs. Addison E. Sheldon, seconded by Miss Mary St. Martin, they were all accepted and declared members of the N. O. U.: Mesdames Eva J. DeMoss, Emma Ellsworth, Christine Jensen, S. P. Pittman,

Margaret W. Ramboldt, June M. Slocum, and Jessie A. Stitt, and Messrs. F. J. Adams, and Martin E. Larson, all of Omaha; Mesdames Chester Cooper, Earl Lionberger, D. Shank, Dora Speer, and Merrill Wright, of Superior; Mesdames Charles B. Callaway, Agness Callaway, and Susie Callaway, of Fairbury; Mrs. C. A. Shoemaker, and Mr. O. D. Corey, of Lincoln, and Mrs. Clara J. Hart, of Prosser.

New business being in order, the place of the twenty-seventh annual meeting was discussed. A letter from Mr. L. O. Horskey, of Omaha, inviting the N. O. U. to meet at Omaha in May, 1926, was read, and on motion of Miss Mary St. Martin, seconded by Mrs. Lily R. Button, the invitation was accepted, thus fixing Omaha as the place of the next annual meeting.

President Wolcott then called for the reports of the Nominating and Auditing Committees. The Nominating Committee proposed the following officers for 1925-26:

President—Mrs. C. W. McCaskill, Hastings.
Vice-President—Mr. L. O. Horsky, Omaha.
Secretary-Treasurer—Prof. M. H. Swenk, Lincoln.

On motion the report of the Nominating Committee was accepted, and these persons were declared the officers of the N. O. U. for the coming year. Reporting for the Auditing Committee, Mr. C. A. Hart stated that the financial report of the Secretary-Treasurer had been examined and found to be correct. On motion the report of the Secretary-Treasurer was accepted by the Society.

The Secretary-Treasurer then presented a deferred portion of his report relative to the proposed new "Birds of Nebraska". He explained fully the proposd scope and form of the first part of this work, and requested formal authorization from the Society to proceed with the preparation and publication of it. On motion, the Secretary-Treasurer was authorized to prepare the manuscript of the first part of the proposed new "Birds of Nebraska", and to arrange for the illustrating and printing of the same, in such manner as in his judgment seems best, compatible with the resources of the Society.

Brief discussions of co-operative migration lists from Omaha, Lincoln, Fairbury, Superior and Red Cloud, for the spring of 1926, were made, and informally it was agreed that this should be attempted. The matter of termination of the affiliation with the Wilson Ornithological Club and of the desirability of continuing support of the WILSON BULLETIN as individuals was also discussed, without formal action.

The Secretary-Treasurer was instructed to write to Dr. H. B. Lowry, one of the Past Presidents, on behalf of the Society, sending him a greeting and wishes for a speedy recovery from his illneess. A motion was also carried, extending the appreciation of the N. O. U. to the Superior members of the Society for the many courtesies extended by them to the visiting members.

The session then adjourned at 11:00 P. M.

On Saturday, May 9, the twenty-third annual field day of the N. O. U. was held. The day was cloudy, temperature at 10:00 A. M., 52° F., but quite chilly early in the morning, and there was only a slight wind. The start was made at 6:00 A. M. and return at 10:00 A. M. One field party visited the ponds west of town, and another worked along the Republican River just south of town. The total list of the day included eighty-three species of birds, as follows:

Bluebird, Robin, Olive-backed Thrush, Wood Thrush, Long-tailed Chickadee, Long-billed Marsh Wren, Brown Thrasher, Catbird, Mockingbird, Maryland Yel-

low-throat, Myrtle Warbler, Yellow Warbler, Black and White Warbler, Bell's Vireo, Warbling Vireo, Migrant Shrike, Rough-winged Swallow, Bank Swallow, Tree Swallow, Barn Swallow, Purple Martin, Scarlet Tanager, Dickcissel, Rose-breasted Grosbeak, Black-headed Grosbeak, Cardinal, Towhee, Lincoln's Sparrow, Song Sparrow, Western Field Sparrow, Clay-colored Sparrow, Chipping Sparrow, White-throated Sparrow, White-crowned Sparrow, Gambel's Sparrow, Harris's Sparrow, Lark Sparrow, Savannah Sparrow, Pine Siskin, Goldfinch, Bronzed Grackle, Baltimore Oriole, Meadowlark, Western Meadowlark, Red-winged Blackbird, Yellow-headed Blackbird, Cowbird, Crow, Blue Jay, Phoebe, Crested Flycatcher, Arkansas Kingbird, Kingbird, Northern Flicker, Red-headed Woodpecker, Northern Downy Woodpecker, Hairy Woodpecker, Belted Kingfisher, Marsh Hawk, Western Mourning Dove, Killdeer, Spotted Sandpiper, Yellowlegs, Semipalmated Sandpiper, Red-backed Sandpiper, Least Sandpiper, Baird's Sandpiper, White-rumped Sandpiper, Wilson's Snipe, Wilson's Phalarope, Northern Phalarope, Coot, Sora, Bittern, Lesser Snow Goose, Lesser Bluebill, Shoveller, Blue-winged Teal, Widgeon, Mallard, Franklin's Gull anl Pied-billed Grebe.

MYRON H. SWENK, *Secretary-Treasurer, N. O. U.*

Proceedings of the Kentucky Ornithological Society

The annual spring meeting of the Kentucky Ornithological Society was held at Louisville on April 24 and 25, 1925. The evening session was devoted to a play given by the pupils of the Bloom School, of Louisville, entitled "Crowning the Cardinal"; to a brief and enthusiastic address by Mr. James Speed, editor of *The Southern Agriculturist*, on "Keep Your Eyes Open"; and to an illustrated lecture on "Reelfoot Lake: Its Birds and History", by Mr. A. F. Ganier, President of the Wilson Ornithological Club, and Past President of the Tennessee Ornithological Society.

The morning session of April 25 was devoted to a play, "The Birds of Killingsworth", presented by the pupils of the Bloom School; to matters of routine business; and to a "bird experience meeting", which was participated in by fifteen or twenty members from all parts of the state. Twenty-five new members were elected. The following officers were elected for the ensuing year: President, Professor Gordon Wilson, Bowling Green; Vice-President, Miss Emilie Yunker, Louisville; Secretary and Treasurer, Mrs. Charles McBride, 1106 South Fourth Street, Louisville; Historian, Mrs. Merit O'Neal, Louisville; Councillors, Dr. L. Otley Pindar, Versailles; B. C. Bacon, Madisonville; James Speed, Louisville. Bowling Green was chosen as the place for the fall meeting. *The Kentucky Warbler*, a leaflet published by the President, was ordered continued for another year on the same lines as in the past.

MRS. MERIT O'NEAL, *Historian, K. O. S.*

Proceedings of the Iowa Ornithologists' Union

The second annual meeting of the Iowa Ornithologists' Union was held in the Agricultural Hall of the Iowa State College, at Ames, February 21, 1925, and was well attended by members from various parts of the state.

The morning session was opened at ten o'clock with an address by President Rosen, of Ogden, and was followed by the reports of the Secretary and of the Treasurer. The Articles of Affiliation with the Wilson Ornithological Club were read and approved.

Dr. Stephens gave a brief report of the meeting of the American Ornithologists' Union at Pittsburgh in November; but the report of the Wilson Ornithological Club was omitted because of the absence of Mr. Spiker. Miss Kathleen M. Hempell, of Elkader, sent an interesting paper on her experiences in banding birds, which was read by the Secretary.

As part of his introduction of Dr. Weeks, Mr. Rosen read an original poem on the Goldfinch, which was very clever and much enjoyed. Dr. Leroy Titus Weeks, of Emmettsburg, presented a peper on "Birds of Sixty Years Ago", which contained recollections of the Passenger Pigeon, Long-billed Curlew, Whooping Crane, Sandhill Crane, and Swallow-tailed Kite.

The afternoon session opened with a business meeting, which included reports of committees and election of officers. The following officers were elected: President, W. M. Rosen, Ogden; Vice-President, T. C. Stephens, Sioux City; Secretary, Mary L. Bailey, Sioux City; Treasurer, Thos. H. Whitney, Atlantic; Executive Council, Dr. Leroy Titus Weeks, Prof. Homer R. Dill, and Mr. A. J. Palas.

Mr. T. H. Whitney then gave a paper describing his experiences with the Purple Martin. This paper was published in the June issue of the WILSON BULLETIN, as was also the one by Miss Hempel. Mr. John J. Cole, of Nevada, discussed the relation of birds to agriculture, using lantern slides. A paper entitled "The Birds' Garden", by Mr. Weir R. Mills, of Pierson, was an intimate study of the birds of a village home lot in which over a hundred species have been recorded. Mrs. Henry Frankel, of Des Moines, told of her attempts and success in interesting school children in birds. Mr. A. J. Palas, of Des Moines, gave an interesting account of his study of birds during a summer spent in Colorado. The meeting closed with a second talk by Dr. Weeks, for which he chose the subject, "The Garden of Eden".

Several papers given on the preceding day in the program of the Iowa Conservation Association were of interest to bird students. Dr. H. C. Oberholser, of Washington, discussed some general principles of wild life protection. Dr. T. C. Stephens, of Sioux City, read a paper on "Recent Steps For and Against the Conservation of Wild Life". Mr. Arthur Goshorn, of Winterset, gave reminiscences of hunting experiences on "A Willow Bar" in the Missouri River, covering a number of years. Mr. Walter W. Bennett, of Sioux City, gave the evening talk on "Island Bird Life", illustrated by many beautifully colored slides from photographs made by himself in the various bird colonies of North Dakota. He also exhibited several reels of motion pictures of the White Pelican and other birds. Those who attended these meetings felt highly repaid, and we hope others will join us next year.

MRS. MARY L. BAILEY, *Secretary, I. O. U.*

PUBLICATIONS REVIEWED

LIFE HISTORIES OF NORTH AMERICAN WILD FOWL. ORDER ANSERES (PART). By Arthur Cleveland Bent. Bulletin 130, United States National Museum, pp. i-x+1-376. Washington, D. C., 1925.

This publication continues and completes the consideration of the life histories of our North American wild fowl (*Anseres*) that was begun in Bulletin 126 of the U. S. National Museum (1923), and which included the species num-

bered 129 to 150 in the A. O. U. Check-List, or from the mergansers to the Ring-necked Duck. The present bulletin treats of A. O. U. Nos. 151 to 181, or our two goldeneyes, the Buffle-head, Old-squaw, Harlequin and Labrador Ducks, the eiders and scoters, the Ruddy and Masked Ducks, and the geese, tree-ducks and swans. These two bulletins on our wild fowl in turn follow treatments of the petrels and pelicans and their allies (*Tubinares* and *Steganopodes*), the gulls and terns (*Longipennes*) and the diving birds (*Pygopodes*), which appeared, respectively, as Bulletins 121 (1922), 113 (1921) and 107 (1919) of the U. S. National Museum. Reviews of Bulletins 107 and 113, by W. F. Henninger, have already appeared in the WILSON BULLETIN (xxxi, pp. 100-101 and xxxiii, p. 201).

There is no substantial departure in this last part of Mr. Bent's splendid work from the general plan of arrangement and the high standard of excellence of its four predecessors. As in the previous parts, Mr. Bent quotes copiously from the published writings and unpublished notes of many other competent ornithologists, wherever these are pertinent, skillfully weaving these quotations by extensive original interpolations into complete and most interesting biographies of each of the species treated. It is difficult to imagine any more pleasing, accurate and instructive ornithological reading than is to be found in this work, and the reader is gratified at the wise action of the Council of the A. O. U. in 1923 in awarding to its deserving author the second medal and honorarium under the Brewster Memorial Fund.

In the first two parts of this work Mr. Bent adopted the nomenclature of the third (1910) edition of the A. O. U. Check-List without any changes, but in the last two parts, as well as the present one, though following the sequence of the Check-List as far as possible, he has departed from its nomenclature in several cases where such a departure seemed necessary to reflect the advance of ornithological science during the past fifteen years. In the two parts dealing with the *Anseres*, Drs. C. W. Richmond and H. C. Oberholser have assumed responsibility with Mr. Bent for the scientific names used, which are in several cases at variance with those used in the Check-List and its supplements. Following Miller (*Auk*, xxxiii, pp. 278-281), the subgenus *Melanitta*, including the White-winged Scoters, has been elevated to generic rank and extended to include the Surf Scoter, and following Oberholser (*Auk*, xxxvi, p. 562), the subgenus *Exanthemops*, including the Ross's Goose, has also been elevated to generic rank. The supposed western subspecies of White-winged Scoter described by W. S. Brooks in 1915 as *dixoni*, and accepted by the A. O. U. Committee in the Eighteenth Supplement, is not recognized by Mr. Bent.

But it is in the nomenclature of the geese that we find the most changes as a result of recent studies. Following Swarth and Bryant (1917), Mr. Bent regards our common White-fronted Goose as identical with the European bird, and the subspecific name *gambelli*, so long used to designate a supposed western American subspecies of wide distribution, is restricted to a large form found wintering in California, which is called the Tule Goose. In his treatment of the four so-called subspecies of *Branta canadensis*, a group that has excited considerable controversy of late, Mr. Bent, having no important new evidence to submit, wisely follows the A. O. U. Check-List arrangement, which has been well defended by Swarth. However, he indicates an inclination to follow Figgins in the opinion that *minima* is specifically distinct from *canadensis*, though apparently not fol-

lowing him in the opinion that *occidentalis* and *hutchinsi* are hybrids between *minima* and *canadensis*. Following Hartert (1917), the American Brant is regarded as subspecifically identical with the European Brant, from which it has been separated for years as subspecies *glaucogastra*, and, again following Hartert (1920), the Black Brant (*nigricans*), which has been considered a distinct species, is regarded as a subspecies of the Brant. Mr. Bent includes the Bean Goose (*Anser fabialis*) as North American, but the propriety of this has been recently questioned by Mr. Jourdain (*Auk*, xlii, p. 173).

In the vernacular names Mr. Bent follows the A. O. U. Check-List consistently, except that, in conformity with a sensible usage that is rapidly growing in popularity, he drops the possessive form where the name is derived from that of a person (e. g., Ross Goose and Hutchins Goose, not Ross's Goose and Hutchins's Goose), and also inclines to a less extensive hypenation (e. g., Bufflehead and Oldsquaw, not Buffle-head and Old-squaw). He also uses the modifying word American with names of forms which have close representatives in the Old World. With all of these practices the reviewer finds himself in most complete sympathy.—M. H. S.

THE BIRDS OF YELLOWSTONE PARK. By Milton P. Skinner. Roosevelt Wild Life Bulletin. Vol. III, No. 1. Pp. 1-189. February, 1925.

We have in this bulletin the most complete account of the birds of the Yellowstone which has thus far appeared. It is written in narrative style for the special use of the tourist who may not have much knowledge of birds. But at the same time it will prove both entertaining and useful to any bird student who may not be familiar with the western birds. It will certainly facilitate the finding and identification of the birds in the Park by the tourist whose time is limited.

Each ecological area of the Park is separately discussed with respect to its bird life; thus, "Birds of the Forests"; "Birds of the Brooks and Rivers"; "The Bird Life at Mammoth Hot Springs"; etc., etc. There is an interesting account of the influences of warm springs and gas vents on birds. Here we learn that there are certain dangers for birds in the gases emitted from the earth. The section on the White Pelican is a valuable summary of our knowledge of the life history of this species. Following the narrative account we find a useful table of field identification marks for all of the common species, which we believe will be of great help to all novices in bird study. There is also a complete list of the birds of the Park, including all of the rarer ones, and numbering 202 species. Other features are a bibliography of papers dealing with the birds of the Yellowstone; two black and white maps of the Park, one geographical, the other showing the life zones; and an index. Forty-seven half-tone reproductions of photographs, and four colored plates of birds by E. J. Sawyer embellish the work. The artistic work of Mr. Sawyer is particularly pleasing.

From the author's style in the beginning of his narrative the uninformed reader might get the impression that the story is written up from a single trip or visit to the Park; so it may be said that Mr. Skinner has lived in the Park for many years, and doubtless has a fuller acquaintance with its wild inhabitants than any other living person. Such papers as this one must be considered of distinct service to the public, provided they are made easily available, and we congratulate Dr. Adams on the splendid series which he has thus far put out.—T. C. S.

TO OUR CONTRIBUTORS

Our members are urged to submit articles for publication in the BULLETIN. Short items are desired for the department of General Notes, as well as longer contributions, especially pertaining to life-history, migration, ecology, behavior, song, economic ornithology, field equipment and methods, etc. Local faunal lists are also desired, but they should be annotated, at least briefly, and should be based upon sufficient study to be reasonably complete. Authors are asked to include the common name, the scientific name (from the A. O. U. check-list), and annotations, and they should be arranged in this order. The annotations should include explicit data concerning unusual species. Omit serial numbering.

THE MANUSCRIPT. The manuscript, or copy, should be prepared with due regard for literary style, correct spelling and punctuation. Use sheets of paper of good quality and of letter size (8½x11 inches); write on one side only, and leave wide margins; if at all possible manuscript should be prepared with a typewriter, using double spacing and a reasonably fresh, black ribbon.

The title should be carefully constructed so as to indicate most clearly the nature of the subject matter of the contribution. Where the paper deals with a single species it is desirable to include in the title both the common and the scientific names, or, to include the scientific name in the introductory paragraph. Contributors are requested to mark at the top of the first page of the manuscript the number of words contained. This will save the editor's time and will be appreciated.

Manuscripts intended for publication in any particular issue should be in the hands of the editor thirty days prior to the date of publication.

ILLUSTRATIONS. To reproduce well prints should have good contrast with detail. In sending prints the author should attach to each one an adequate description or legend.

BIBLIOGRAPHY. The scientific value of some contributions is enhanced by an accompanying list of works cited. Such citations should be complete, giving author's name, full title of the paper, both the year and volume of the periodical, and pages, first and last.

PROOF. Galley proof will be regularly submitted to authors. Page proofs will be submitted only on request. Proof of notes and short articles will not be submitted unless requested. All proofs must be returned within four days. Expensive changes in copy after the type has been set must be charged to the author.

SEPARATES. The Club is unable, under present financial conditions, to furnish reprints to authors gratis. Arrangements will be made, however, for such reprints to be obtained at practically cost. The cost will vary somewhat with the nature of the composition, but will depend mainly upon the number of pages. A scale of rates is appended which will serve as a guide to the approximate printer's costs.

If a blank page is left in the folding this may be used for a title page, which will be set and printed at the rate indicated. If a complete cover with printed title page is desired it may be obtained at the rate shown in the last column. All orders for separates must accompany the returned galley proof upon blanks provided. Orders cannot be taken after the forms have been taken down.

Copies	2	4	6	8	12	16	20	24	28	32	36	40	Cover
50	$1.25	$2.00	$2.75	$3.50	$4.75	$6.00	$7.75	$8.50	$9.75	$11.00	$12.25	$13.50	$2.75
100	1.50	2.25	3.00	3.75	5.00	6.25	7.50	8.75	10.00	11.25	12.50	13.75	2.50
200	2.00	2.75	3.50	4.25	5.50	6.75	8.00	9.25	10.50	11.75	13.00	14.25	3.00
300	2.75	3.50	4.25	5.00	6.25	7.50	8.75	10.00	11.25	12.50	13.75	15.00	4.00
400	3.25	4.00	4.75	5.50	6.75	8.00	9.25	10.50	11.75	13.00	14.25	15.50	5.00
500	3.75	4.50	5.25	6.00	7.25	8.50	9.75	11.00	12.25	13.50	14.75	16.00	6.00

Repaging—25c per page extra.
Title Page—1.25.

Annual Meetings of the Wilson Ornithological Club

	Retiring President
1914—Chicago. February 5. Chicago Academy of Sciences.	
1914—Chicago. December 29-30. New Morrison Hotel	T. C. Stephens
1915—Columbus. December 28-29. With the A. A. A. S.	T. C. Stephens
1916—Chicago. December 27-28. New Morrison Hotel	T. C. Stephens
1917—Pittsburgh. January 1-2, 1918. With the A. A. A. S.	W. F. Henninger
1918—No meeting on account of the exigencies of war	M. H. Swenk
1919—St. Louis. December 29-30. With the A. A. A. S.	M. H. Swenk
1920—Chicago. December 27-28. With the A. A. A. S.	R. M. Strong
1921—Chicago. December 26-27. The Field Museum	R. M. Strong
1922—Chicago. October 26	T. L. Hankinson
1923—Cincinnati. Dec. 31-Jan. 1, 1924. With the A. A. A. S.	T. L. Hankinson
1924—Nashville. November 28-29-30. Peabody College	A. F. Ganier